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Surgery

Functioning Insuloma of the Pancreas With Surgical Cure

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Functioning islet cell tumors of the pancreas are rare, only 400 cases having been reported to date. Early diagnosis is of considerable practical importance since delay may lead to permanent cerebral damage, or untimely death, and surgical treatment is curative. The above considerations, as well as the rarity of the condition, make every new case of Insuloma of the Pancreas worth reporting.

Case Report

Mr. M. Age 37, veteran of World War II was transferred to Deer Lodge Hospital from Winnipeg General Hospital on the 28th of July, 1953. His complaints were (1) episodes of vomiting for 28-29 years. (2) "blackout spells" for past 2 years. The vomiting spells, dating back to childhood, became more frequent during the past few years. The characteristic feature about them is their occurrence when his meals were delayed for half to one hour. If served on time he never vomited. The "blackout spells" began during the summer of 1951. At first they occurred every 2-3 weeks. Lately he has had them every day. Attacks occurred during the night or early morning before breakfast. He has no aura, nor any recollection of what the attack is like. He has never bitten his tongue, but has sustained slight injuries. Up 'till lately he has never been incontinent but during the last three spells he noticed that his bed was wet. His wife stated that his limbs twitched during the attacks, and that he often got up, and did things, which he could not later recall. The episodes last up to half hour.

Personal and family history were non contributory. Functional inquiry revealed an impairment of memory for recent events, some difficulty of orientation in time, and a loss of sense of taste. Physical examination revealed a thin haggard-looking man looking fully his age with a dull facial expression. His B.P. was slightly elevated (150/100). Neurological examination was negative except for the loss of the gustatory sense. Mentally, he was dull and slow spoken.

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Previous investigation at the Winnipeg General Hospital revealed normal C.S.F. findings, suggestion of atrophy of frontal lobes on the pneumoencephalogram, and an abnormal pattern without any focal abnormality on the electroencephalogram. The discharge diagnosis was Epilepsy of undetermined etiology. He was given Dilantin, but without any apparent effect.

On July 31, 1953, patient stated that he was in a "fog" all day. He was noted to be lethargic and dull, and appeared to be markedly confused since 3 p.m. At supper time he complained of a frontal headache and refused food. At 8.45 p.m. the orderly noted twitching of facial muscles. Gradually all the muscles of the upper and lower extremities became involved in the twitching movements, and by 9.40 p.m. he had to be restrained by two orderlies. At 9.50 p.m. he was seen by Dr. I. B. who observed that the patient was perspiring freely, staring into space with his eyes wide open, and twitching all over. Sodium Luminal grs. 11 was given intravenously, with a resulting diminution in movement. The gradual onset of the attack, its long duration, the associated diaphoresis, and its occurrence in the fasting state led Dr. I. B. to the diagnosis of hyperinsulinism on clinical grounds. He gave the patient an intravenous infusion of glucose with dramatic results. Twitching ceased and consciousness returned almost immediately. Fasting blood sugar on the following morning was 18 mgm. %. On Aug. 2 it was 36 mgm. %. On Aug. 3 it was 26 mgm. %. The diagnosis of hyperinsulinism thus confirmed he was transferred to surgery on Aug. 19.

Exploration of the pancreas was undertaken on Aug. 20, 1953, under pentothal-cyclopropane anaesthesia, the abdomen was opened by a high left paramedian incision. Several loops of jejunem were found to be densely adherent to the inferior leaf of the transverse mesocolon, thus precluding the inferior approach to the lesser sac. The pancreas was, therefore, exposed by opening the triangular space bounded superiorly by the left hand portion of the greater curvature of the stomach, inferiorly by the left half of the transverse colon and laterally by the spleen.

Palpation of the exposed pancreas indicated an apparently normal gland except that a localized area of deep firmness was felt near the inferior edge of the organ at about the junction of the tail with the body. As this area lay well inferior to the main pancreatic duct, a small

vertical incision was made through the capsule and substance of the gland at this point. Deep in the body of the gland substance an encapsulated spherical tumor about one inch in diameter was isolated by blunt dissection and removed intact. It did not shell out easily and protracted manipulation was necessary to free it. The pancreatic wound was sutured and a soft drain was placed in the lesser sac.

During the operation, the anaesthetist noted that manipulation of the tumor was followed almost immediately by a short-lived volcanic upsurge in systolic blood pressure, to above the 200 mm. level. This was attributed to the presumed compensatory outflow of adrenalin. The pathological report on the excised specimen revealed the following:

"Gross: A rounded fibrous nodule 1.5 cms. in diameter. On cut section it appears white and firm with some yellowish patches. Micro: Nodule is made up of collections of islet cells separated by dense collagenous fibrous tissue. Most of the cells have a round or columnar shape with faintly eosinophilic cystoplasm and poorly defined cellular outlines. The nuclei are round and uniform in size. The cells have a small darkly staining flattened nucleus. It is seen mostly surrounded by groups of paler cells. Surrounding the nodule is a thin fibrous capsule that contains the remains of somewhat flattened pancreatic tissue.

Diagnosis: Islet cell adenoma of pancreas."

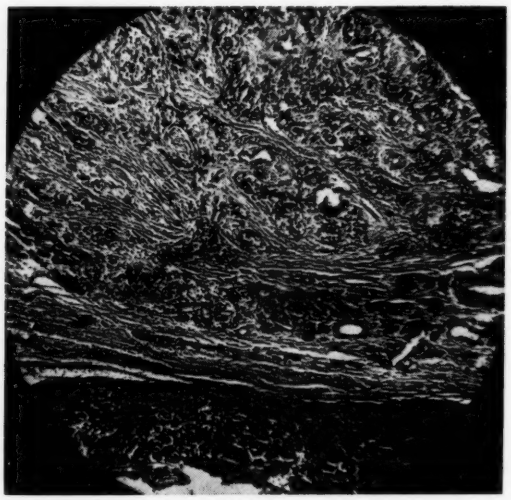
The post-operative convalescence proceeded favorably. Discharge from the drainage tract increased until it was quite copious. It then became intermittent and the patient volunteered that a free flow caused him no distress. Cessation of the discharge, however, resulted in the development of pain in the top of the left shoulder. This would build up in intensity for a few days only to disappear coincidentally with the release of more discharge. Post-operative X-rays at this time revealed elevation and reduction in respiratory excursion of the left half of the diaphragm.

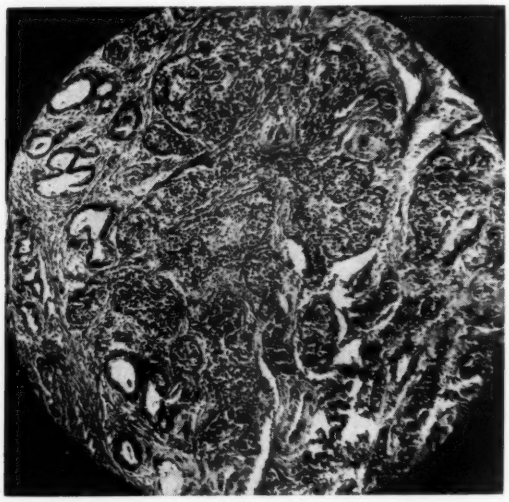
The discharge gradually lessened, the wound healed firmly and the patient was discharged to his home on September 23, 1953. During his post-operative stay in hospital his blood sugar rose to a high of 130 mgm. % immediately following the operation and then finally settled at the level of 80 mgm. %. His mental condition remained clear and he has had no further "spells."

Discussion

It is of interest that the eventual recognition of the true nature of the "blackout spells" in this case was attained not by an elaborate, orderly exercise in differential diagnosis, but by the direct observation of the seizure and the correct interpretation of its association with the fasting state.

Microscopic Views of Tumor





Once hyperinsulinism is thought of, the diagnosis becomes a simple matter. The requirements of the triad of Whipple, when fulfilled, leave no room for equivocation. In this case the fasting blood sugar was 18 mgm. %, well below the requisite low of 50. The symptoms occurred during the post absorptive state, and the response to glucose was dramatic. In the much more common functional hypoglycemias, the characteristic symptoms, and the fall in blood sugar occur not during the fasting state, but two to three hours after meals. Moreover the blood sugar level is never as low as it is in organic hyperinsulinism. The hypoglycemias associated with endocrine and hepatic

disorders are usually recognized by the characteristic features of the causative conditions, which overshadow those of hypoglycemia. The diagnosis, thus, is simple once hyperinsulinism is thought of. Due to its rarity, however, it is not always foremost in our minds, when we are confronted with a diagnostic problem.

Another cause of diagnostic detours is the fact that the manifestations of hypoglycemia are not specific, and may occur in other conditions. The three types of disturbances of the nervous system met with, singly, or in succession during hypoglycemic episodes are those of the (1) Autonomic nervous system: restlessness, palpitation, pallor, sweating, salivation, and vomiting, presumably due to compensatory secretion of adrenaline. (2) Motor system; spasms, twitching, convulsions, (3) Psychic sphere: confusion, anxiety, stupor. The episodes of vomiting during the fasting state that antedated the "blackouts" in this case by many years suggest that the onset of hyperinsulinism may have been early in life, during late childhood or early adolescence.

It would not be amiss at this point to review briefly the salient features in the pathophysiology and treatment of hyperinsulinism. Our knowledge of this interesting condition is relatively recent. It was only twenty-nine years ago, two years after Banting's great discovery of Insulin, that the concept of hyperinsulinism was put forth by Harrison, and it is only sixteen years since Roscoe Graham removed the first islet cell tumor. Nonetheless, due to the work of Howard, Wilder, Whipple and others, our knowledge of the subject is fairly extensive.

Functioning islet cell tumors can be broken down into three groups: (1) Benign adenomas 78.6%, (2) Malignant tumors 9.3%, (3) Suspiciously malignant tumors (pathologically malignant, but clinically benign) 12.1%. The tumors are single in 86% of cases, multiple in 12%, and ectopic in 2%. They vary in size, and may be found in any part of the pancreas, with a slight predilection for the tail. Occasionally hyperinsulinism may be due not to a tumor, but to a generalized hyperplasia of islet cells. The sex incidence is about equal. The age incidence is 35-60, with cases reported in all age groups.

The physiology of this condition is that of excessive secretion of Insulin with resulting hypoglycemia, and its effects. The main site of the latter is the brain, which depends for its metabolism on glucose and oxygen. The early symptoms of anxiety, palpitation and sweating are due to adrenaline which is secreted compensatorily in order to raise the level of blood sugar by liberating glucose from hepatic glycogen. The later manifestations are similar to those of cerebral anoxia. The electroencephalogram usually shows a slowing of the wave pattern to 3 per second. (In this case, it was not characteristic).

The prognosis in untreated cases is poor, mortality during the hypoglycemic episode, mental deterioration due to cerebral damage, caused by repeated attacks, obesity due to craving for food in some cases, and metastases of malignant tumors, are the known hazards.

Treatment is surgical. From the standpoint of surgical technique, a properly placed incision in the pancreatic substance is of importance. The main pancreatic duct traverses the tail and body of the gland as a straight tube lying in the heart of its longitudinal axis. It receives hundreds of tiny individual subsidiary ducts, all of which tend to run and join separately at right angles to the main duct. Intra-glandular incisions should be so planned as to avoid the unnecessary severance of ducts. In spite of all precautions, it is the rule rather than the exception for a fistula to result. Fortunately the vast majority of these are known to close spontaneously.

The disturbance of blood chemistry which results from the presence of the tumor, must be combatted and controlled before, during and after the operation. The anaesthetist's task is one of considerable magnitude.

Despite all precautions, the mortality rate is still high (9%). Nonetheless, the hazards and disadvantages of surgery are outweighed by its benefits.

Medical History

Servetus (1509-1553)*

J. D. Adamson

Medicine has bred or harboured many singular characters and indeed, pre-eminence in medicine implies eccentricity. Hippocrates was great because he renounced Olympian mysticism; Vesalius was great because he controverted Galenic dogma; Sydenham excelled because he was indifferent to academic dictation and John Hunter because of stubborn independence; Darwin and many others were singular individuals. These have become famous because they broke from the herd and, largely by chance, discovered new and productive fields. I say "by chance" because it is obvious that not every maverick encounters green pastures; in fact, most become entangled in the barbed wire of convention and social restraint.

But besides all those who have succeeded in medicine because of departure from standard behaviour, there are many others whose eccentricity is not related to medicine; that is, they are freaks in their own right, but happen to have been interested in medicine; Rabelais, Leonardo, Paracelsus, Goldsmith and Smollet may be classified here. But perhaps the most singular person in history, who happened to be a doctor, is Michael Servetus. He probably led the most violently controversial life of any medical man and because he lost his principal argument, he lost his life. Some people refer to him as a medical martyr but of course he was not; his medical opinions were incidental and completely innocuous so far as the church was concerned; he died not for medicine but because he would not conform to any religious dogma but his own.

Servetus was born in 1509, in Villaneuva, Aragon, of an old and independent Spanish family. It was intended that he should take Holy Orders and until the age of thirteen, he was educated in a cloister, after which he went to the University in Saragossa, until about the age of 19. Here he showed precocious ability, a most pious temperament but a very independent and stubborn disposition. He acquired the usual thorough classical education of the day and became a master of both Latin and Greek, but also studied astronomy, mathematics and geography. The advent of printing had made all the great classics available but there were also many new books being published attacking the old order and heralding the Reformation. The whole of Europe was tense with the heresy of Martin Luther and the Spanish Inquisition had reached the height of ecclesiastical ferocity. Servetus — precocious, critical and hypomanic — read all the interdicted literature and when about nineteen years of age gave up the church as a vocation. He then studied for two or three years in the University of Toulouse, where he read all the controversial and inflammatory literature that was available, including the works of Luther and Erasmus. He developed a strong resentment to corruption in the Church, but also did not completely agree with Luther. At the early age of twenty he wrote:

"For my own part, I neither agree nor disagree in every particular with either Catholic or Reformer. Both of them seem to me to have something of truth and something of error in their views; and whilst each sees the other's shortcomings, neither sees his own. God in goodness give us all to understand our errors and incline us to put them away. It would be easy enough, indeed, to judge dispassionately of everything, were we but suffered without molestation by the Churches freely to speak our minds; the older exponents of doctrine, in obedience to the recommendation of St. Paul, giving place to younger men, and these in their turn making way for teachers of the day who had aught to impart that had been revealed to them. But our doctors now contend for nothing but power. The Lord confound all tyrants of the Church! Amen."

In spite of his bivalent scepticism he continued to be very pious and devout. If he had been content to remain silent about his doubts, like most rational people of that day, he would have had no trouble. But he had more than a trace of fanaticism and this drove him to attempt not only to reform the Church but to reform the Reformers. He entered into association with reformers of Gemany and Switzerland but soon found that he did not agree with their concept of the Trinity. So in 1531, at the age of twenty-two, he went to Basle and published his first book, "De Trinitatis Erroribus," in which he incensed the reformers because "he disputes the co-eternity and consubstantiability of the Father and the Son." One of his Christian critics truculently suggested that he should be "disemboweled and torn to pieces."

Soon after this, Servetus fled to France, but took the precaution to change his name to "Villaneuva"; he knew that his opinions would be considered heretical by the orthodox and that they were even more facile at evisceration in France than in Switzerland. For some years he appears to have retired from violent religious controversy and in 1536, at the age of twenty-seven,

*The main facts in this essay were derived from "Servetus and Calvin" by R. Willis, M.D. Henry S. King and Co., London, 1877. Quotations, except when otherwise indicated, are from that book.
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he received his M.A. and M.B. degrees in Paris, even though the profession of medicine was, at that time, considered derogatory to the dignity of a high born Spaniard. While studying medicine in Paris he was prosector with Vesalius, under Winter of Andernach and assisted at two of the annual public dissections. After graduation he became a teacher on the Faculty of Paris and lectured — apparently quite successfully — on Geology and Astrology. But in medicine, as in theology, he was violent and venomous in debate and joined in the perennial conflict in the Faculty between the Greek School (Hippocrates and Galen) and the Arabian School (Avicenna and Averrhoes). Servetus wrote an acrimonious defence of Galenism which so aroused the Faculty that he was brought before the Inquisition on the charge of divination, which astrology implies, and which was said to be heretical. He was acquitted on this charge; fortunately he was not recognized as Servetus, the author of "De Trinitatis Erroribus." He was then summoned before the Parliament, who ordered him to recall the pamphlets against the Faculty, to pay them due respect, and restrained him from the practice of divination.

Evidently the University atmosphere stifled his captious spirit and in 1538 he moved to Charlieu, twelve miles from Lyons where he remained only a year and evidently had more trouble. There are contemporary references to him as "most arrogant and insolent" and also to certain "love passages." He was still a devout Christian and in his thirtieth year was baptized as Christ had been, and wrote to Calvin, urging him to do the same. Nothing could be better calculated to arouse the venom of Calvin who was rabid in his support of infant baptism.

In 1539 he moved to Vienne (near Lyons) under the patronage of Archbishop Paumier, whom he had known in Paris. In 1542 he edited the Pagnini bible, but evidently stole the translation of Novesianus (1541) without giving him credit. In his comments he treats the old testament as an historical document; he discredits most references to the coming of Christ and discounts its prophetic nature. He earned ecclesiastical censure from both camps, his comments were branded as "impertinent and impious" and his book was interdicted. In spite of this he remained in favour at Vienne and continued to practice medicine there. It was here that he published his only known medical work—a treatise on symptoms.[1] He carried on a long correspondence with Calvin, whom he had known while in Paris, which was mutually violent and vituperative, having to do with metaphysical and doctrinaire matters—Servetus stimulated by fanaticism and Calvin by pride and hate.

1. Villanovanus, M.: Symporium universa ratio ad Galeni censuram, Lyons, 1546.

While in Vienne, he wrote "Restoration of Christianity" and the manuscript was sent to Calvin, evidently in a spirit of bravado; this was never recovered and was the evidence finally produced to convict Servetus. A second copy was, after much difficulty, published in a secret printing press in Vienne, after having failed to procure a printer in Basle. Neither the name of the author or printer appeared. The only mark of authorship was "M.S.V." on the last page. One thousand copies were run off but probably never put on sale. The first copy referred to after the death of Servetus was in the possession of Dr. Richard Meade in 1694, 141 years after the death of Servetus. Only two known copies have survived the flames that were presently to engulf Servetus and his works.

The book, characterized by piety and devotion, repudiates church dogma and also controverts Luther and Calvin. Servetus shows himself a master of invective and attacks the papacy in terms of measureless reprobation and likens the Pope to the antichrist of the apocalypse. He refers to paedo-baptism as "a detestable sin" but expresses his faith in the supper and the absolution of sin by a minister.

In his effort to explain the "Holy Spirit" he gives us his classical account of the pulmonary circulation, which he had no doubt discovered when studying anatomy in Paris. Extracts of this account, divested of some of the more fantastic features are given below:

"There is commonly said to be a threefold spirit in the body of man, derived from the substance of three superior elements—a natural, a vital and an animal spirit.

1. One of these, the first, characterized as natural, is communicated from the arteries to the veins by their anastomoses, and is primarily associated with the blood, the proper seat or home of which is the liver and veins.

2. The second is the vital spirit, whose seat or dwelling place is the heart and arteries.

3. The third, the animal spirit, comparable to a ray of light, has its home in the brain and nerves. In each and all of these is the force—energeia—of the one spirit and light of God comprised.

"Rightly to understand the question here, the first thing to be considered is the substantial generation of the vital spirit—a compound of the inspired air with the most subtle portion of the blood. The vital spirit has, therefore, its source in the left ventricle of the heart, the lungs aiding most essentially in its production. It is a fine attenuated spirit, elaborated by the power of heat, of a crimson colour and fiery potency—the lucid vapour as it were of the blood, substantially composed of water, air, and fire; for it is engendered, as said, by the mingling of the inspired air with the more subtle portion of the blood which the

right ventricle of the heart communicates to the left. This communication, however, does not take place through the septum, partition or midwall of the heart, as commonly believed, but by another admirable contrivance, the blood being transmitted from the pulmonary artery to the pulmonary vein, by a lengthened passage through the lungs, in the course of which it is elaborated and becomes of a crimson colour. Mingled with the inspired air in this passage, and freed from guliginous vapours by the act of expiration, the mixture being now complete in every respect, and the blood become fit dwelling place of the vital spirit, it is finally attracted by the diastole, and reaches the left ventricle of the heart.

"Now that the communication and elaboration take place in the lungs in the manner described, we are assured by the conjunctions and communications of the pulmonary artery with the pulmonary vein. The great size of the pulmonary artery seems of itself to declare how the matter stands; for this vessel would neither have been of such a size as it is, nor would such a force of the purest blood have been sent through it to the lungs for their nutrition only, neither would the heart have supplied the lungs in such fashion, seeing as we do that the lungs in the foetus are nourished from another source—those membranes or valves of the heart not coming into play until the hour of birth, as Galen teaches. The blood must consequently be poured in such large measure at the moment of birth from the heart to the lungs for another purpose than the nourishment of these organs. Moreover. it is not simply air, but air mingled with blood that is returned from the lungs to the heart by the pulmonary vein.

"It is in the lungs, consequently, that the mixture, (of the inspired air with the blood) takes place, and it is in the lungs also, not in the heart, that the crimson colour of the blood is acquired. There is not indeed capacity or room enough in the left ventricle of the heart for so great and important an elaboration, neither does it seem competent to produce the crimson colour. To conclude, the septum or middle partition of the heart, seeing that it is without vessels and special properties, is not fitted to permit and accomplish the communication and elaboration in question, although it may be that some transudation takes place through it.* It is by a mechanism similar to that by which the transfusion from the vena portae to the vena cava takes place in the liver, in respect of the blood, that the transfusion from the pulmonary artery to the pulmonary veins takes place in the lungs, in respect of the spirit.

"The vital spirit (elaborated in the manner described) is at length transfused from the left ventricle of the heart to the arteries of the body at large, and in such a way that the more attenuated portion tends upwards and undergoes further elaboration in the retiform plexus of vessels situated at the base of the brain, in which the vital begins to be changed into the animal spirit, reaching as it now does the proper seat of the rational soul. Here, still further sublimated and elaborated by the igneous power of the soul, the blood is distributed to those extremely minute vessels or capillary arteries composing the choroid plexus, which contain or are the seat of the soul itself. The arterial plexus penetrates even the most intimate part of the brain, its constituent vessels, interwoven in highly complex fashion, being distributed over the ventricles and sent to the origins of the nerves which subserve the faculties of sensation and motion. Most wonderfully and delicately interwoven, these vessels, although spoken of as arteries, are really the terminations of arteries proceeding to the origins of nerves in the meninges. They are in truth a new kind of vessels; for, as in the transfusion from arteries to veins within the lungs we find a new kind of vessels proceeding from the arteries and veins, so, in the transfusion from arteries to nerves, is there a new kind of vessels produced from the arterial coats and the cerebral meninges. 'Chr. Rest.' p. 170."

There is no evidence that Servetus visualized the systemic circulation of the blood. His description of the lesser circulation was a weird mixture of sound anatomy and Galenic physiology with dark mysticism.

Servetus' writing though so sound and rational physiologically was so reckless and heretical from the doctrinal point of view that one must conclude that he was not well balanced mentally or indifferent to his fate. The latter seems unlikely in view of the minute precautions against discovery and the evidence of desperation when finally faced with his destiny.

Finally in 1553 Calvin provided the Church hierarchy with a copy of "The Restitution" and his original correspondence with Servetus. In spite of this betrayal Calvin hid behind an intermediary and pretended reluctance.

During the trial before the Inquisitor and prelates at Vienne, Servetus was allowed to escape. This expedient was adopted possibly because the church did not relish the idea of condemning Servetus on evidence supplied by the arch-heretic Calvin, and possibly also because he had lived for twelve years on intimate terms with the Archbishop of Vienne, and also appeared to have a good reputation as a practitioner. After his escape the printing press and five hundred copies of the book were found and Servetus was condemned.

"The Court duly summoned, and in the absence of Michel de Villeneuve, proceeded to pass sentence on him, finding him attainted and con-

*A precautionary concession to Galenism.

victed of the crimes and misdemeanours laid to his charge, viz., Scandalous Heresy and Dogmatization; Invention of New Doctrines; Writing Heretical books; Disturbance of the public peace; Rebellion against the King; Disobedience of the ordinances touching heresy, and Breach of the Royal Prison of Vienne." For Reparation of the crimes and misdeeds set forth, said the judge, "we condemn him, and he is hereby condemned, to pay a fine of 1,000 livres Tournois to the King of Dauphiny; and further, as soon as he can be apprehended, to be taken, together with his books, on a tumbril or dust-cart to the place of public execution, and there burned alive by a slow fire until his body is reduced to ashes.' The sentence now delivered, moreover, is ordered to be carried out forthwith on an effigy of the incriminated Villeneuve, which is to be publicly burned along with five bales of the book in question, the fugitive being further condemned to pay the charges of justice, his goods and chattels being seized and confiscated, to the advantage of anyone showing just claim to the proceeds, the fine and expenses of the trial, as aforesaid, having been first duly discharged."

Since Servetus was not available he was burned in effigy in June, 1553. In the meantime he had escaped to Geneva, presumably on his way to Naples. There he was discovered, denounced and arrested at the instigation of Calvin. This was no doubt in surprise to Servetus who had evidently overestimated the tolerance of the Reformers. The trial lasted nearly three months. During this period Servetus wrote several times to his accusers asking that he be allowed counsel and that something be done to remedy the unsanitary condition and the frigidity of his prison cell. Nothing was done and on October 26, 1553, he was condemned in the following terms:

"Having a summary of the process against the prisoner, Michael Servetus, and the reports of the parties consulted before us, it is hereby resolved, and in consideration of his great errors and blasphemies, decreed, that he be taken to Champel, and there burned alive, that this sentence be carried into effect on the morrow, and that his books be burned with him."

The final scene is described in the following terms:

"When he came in sight of the fatal pile, the wretched Servetus prostrated himself on the ground, and for a while was absorbed in prayer. Rising and advancing a few steps, he found himself in the hands of the executioner, by whom he was made to sit on a block, his feet just reaching the ground. His body was then bound to the stake behind him by several turns of an iron chain, whilst his neck was secured in like manner by the coils of a hempen rope. His two books—the one in manuscript sent to Calvin in confidence six or eight years before for his strictures, and a copy of the one lately printed at Vienne—were then fastened to his waist, and his head was encircled in mockery with a chaplet of straw and green twigs bestrewed with brimstone. The deadly torch was then applied to the faggots and flashed in his face; and the brimstone catching, and the flames rising, wrung from the victim such a cry of anguish as struck terror into the surrounding crowd. After this he was bravely silent; but the wood being purposely green, although the people aided the executioner in heaping the faggots upon him, a long half hour elapsed before he ceased to show signs of life and of suffering. Immediately before giving up the ghost, with a last expiring effort he cried aloud: "Jesus! Thou Son of the eternal God, have compassion upon me!" All was then hushed save the hissing and crackling of the green wood; and by and by there remained no more of what had been Michael Servetus but a charred and blackened trunk and a handful of ashes. So died, in advance of his age, one of the gifted sons of God, the victim of religious fanaticism and personal hate."

In Geneva there soon arose a general though suppressed feeling of revulsion against the execution. This inspired a ponderous pronouncement by Calvin in his own defense. He defines his position in the following terms:

"The punishment that befel Servetus is always ascribed to me. I am called a master in cruelty, and shall now be said to mangle with my pen the dead body of the man who came to his death at my hands. And I will not deny that it was at my instance that he was arrested, that the prosecutor was set on by me, or that it was by me that the articles of inculpation were drawn up. But all the world knows that since he was convicted of his heresies I never moved to have him punished by death. There needs no more than simple denial from me to rebut the calumnies of the malevolent, the brainless, the frivolous, the fools, or the disolute." The heat and the vigor of Calvin's protestations make it evident that he felt profound guilt.

Geneva had, prior to this been regarded as the bulwark of independent thought and freedom to worship according to conscience; it now came to be regarded as the seat of a second Inquisition.

"Yet has not even this been without its compensating good; for when Calvin—impersonation of relentless rigour—sent the pious Servetus to the flames it may be said that the knell of intolerance began to toll. Persistence in consigning dissidents from the religious dogmas of the day to death was made henceforth impossible, and persecution on religious ground (to any minor issue) has come by degrees to be seen not only as indefensible in principle, but immoral in fact; for it strikes at the root of the very noblest elements

in the constitution of humanity—Conscience and Loyalty to Truth."

Soon after the death of Servetus several books were published against the punishment of heresy by death. Most of these quoted extensively from Calvin's own publications. In the years that followed enlightened people joined in condemning this form of savagery, which had been practiced since Priscillian was burned in 380 and legalized in 1200 by the Inquisition.

At no time during the trial of Servetus did his anatomical discoveries come under examination and they formed no part of his heresy. The priority of his discovery is hard to establish. It is certain that the time he was writing his account Realdus Columbus (1516-59) who was successor to Veselius in Padua, was describing the lesser circulation in his lectures. But it seems likely that Servetus made his discovery while doing anatomy in Paris (before 1536) where Columbus was a junior student. It may be that each made the discovery independently. It is curious that Vesalius never seems to have come to the same conclusions.

It is quite impossible for rational people of today to understand Servetus. Though he was intellectual and highly educated we would judge him mentally unbalanced; though he spent most of his life in futile discussion of metaphysics he was also a first class anatomist, physiologist and practitioner; though he viciously renounced the dogma of the Church and attacked the Reformers with equal vigour he adhered to his own fanaticism with such pertinacity that he was condemned by each. His turbulent career and gruesome death possibly contributed more, than any other single event, to dissipate the vicious intolerance and bigotry of the middle ages.

Article

Alcoholic Patients in General Hospitals

That alcoholics are sick people who need medical treatment seems now to be more widely accepted than ever before. In recent years many special clinics have been set up to give out-patient services to alcoholics, and treatment and rehabilitation programs have been tried in gaols, state farms and mental hospitals. One type of institution, however, which is more directly concerned with the care of the sick, has been relatively slow to find its role in the treatment of alcoholics. This is the general hospital. But there are many signs that general hospitals, too, are beginning to take part in the new programs for alcoholics.

One of the outstanding problems in alcoholism arises from the fact that the alcoholic repeatedly gets drunk and needs medical care for the acute illness of intoxication. A person ill from any other form of intoxication—mushroom poisoning, insulin poisoning or iodine poisoning, to cite examples—is admitted to a hospital without any question that he belongs there. But a person ill with alcohol poisoning, commonly called "being drunk," has usually been denied admission in most hospitals. M. Hinenberg (Jewish Hospital, Brooklyn, N.Y.), has pointed out that until a few years ago there were hardly any hospitals in this country which would admit an acutely intoxicated alcoholic although he might need medical assistance just as much as some other patient having "a more fortunate illness." In a review of institutional facilities for the treatment of alcoholism throughout the United States, E. H. L. Corwin and E. V. Cunningham (New York Academy of Medicine) found that hospital beds for this condition were "scanty and inadequate" and that those which did exist were not being used to best advantage. Most general hospitals would not admit "drunks." The only place where an alcoholic ill with acute intoxication could be sure of admission in the majority of American communities was the gaol, and few gaols provided a medical examination, not to speak of treatment.

According to S. L. Friedman (Mt. Sinai Hospital, Cleveland) this state of affairs was due partly to the conflict within American society in attitude toward drinking. On the one hand the drinking of alcoholic beverages is approved to the point that there is praise for the man "who can hold his liquor"; on the other hand there is only scorn for the man whose drinking becomes a problem. Another factor mentioned as partly responsible for this condition is the medical tradition which erected "artificial barriers between what is medical and what is social." This tradition made it possible for medical services and institutions to ignore the illness of a type of patient whose behavior aroused social disapproval. Alcoholism, marked by repeated drunkenness and other offensive actions, is just such an illness, and hospitals were in harmony with all of society when they rejected the alcoholic.

In line with the growing recognition of alcoholism as an illness, many general hospitals in recent years have provided beds for alcoholics. This new policy has demonstrated that the alcoholic is a suitable patient for the general hospital and benefits from treatment. And not only does he recover from his acute illness but the stay in the general hospital helps to alleviate the fundamental illness of alcoholism itself. This fact has

been reported by a number of hospital administrators who have experimented successfully with services for alcoholics. Thus, L. C. French of the Knickerbocker Hospital (New York City), 4 years after the opening of an 18-bed pavilion for alcoholics, offered the following evaluation of the results: The care of the alcoholic patients did not interfere with other hospital services; the alcoholic ward did not constitute a great nursing problem; the service was less expensive to run than a comparable surgical or medical service. The alcoholic ward was easily integrated with the regular medical services for teaching purposes. The service was regarded as highly worthwhile because of the great number of patients who went on, after discharge, to complete rehabilitation through measures begun while they were in the hospital.

A similar enthusiastic description of an alcoholic service integrated with a general hospital has been provided by J. P. Lee, business manager of the C. Dudley Saul Clinic, an 18-bed alcoholic service attached to the St. Luke's and Children's Medical Centre in Philadelphia. Lee pointed out that the income of such a clinic for alcoholics "is adequate to cover normal operating expenses and provide good professional and nursing care."

By way of illustrating the requirements of such a hospital service, Lee outlines the routine procedure employed at the C. Dudley Saul Clinic as follows: (1) A medical examination on admission and just prior to discharge. (2) Routine laboratory tests, as well as special tests whenever indicated. (3) Intravenous infusion of glucose in saline with insulin and vitamins; minimal sedation. (4) Daily group therapy sessions, constituting the essential feature of treatment. (5) An individual interview just before discharge to help in formulating directives for the future. (6) An open forum once a week for the families of the patients, to create an understanding atmosphere at home. (7) Co-operation with local Alcoholics Anonymous groups, which take the patient over after discharge from the hospital. (8) A follow-up service.

A number of general hospitals have made beds available to alcoholics in recent years. Should the spread of this practice continue until general hospitals will admit alcoholic patients on the same basis as patients with any other illness, the task of those who are specializing in the treatment of alcoholism will be greatly eased.

Ward Rounds

Children's Hospital, Winnipeg

Recent Experiences With Tumors in Children*

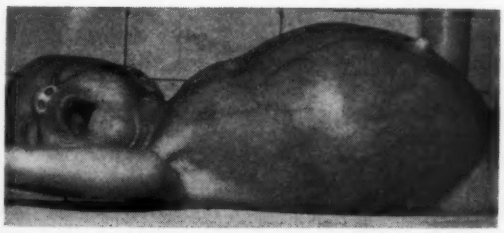
Edited by Wallace Grant, M.D.

Chairman: Dr. J. K. Martin, President of the Honorary Attending Medical Staff.

I. Children's Hospital No. 53-1693

Presented by Dr. H. Popham: This patient was first seen at the age of seven weeks, having been referred because of a large abdomen. The abdomen was very tense, and the only tympanitic area was the right lower quadrant. A flat film of the abdomen was reported on by Dr. Childe as "soft tissue swelling in the upper abdomen, apparently a tumor mass, with definite calcification, possibly a neuroblastoma or a teratoma." Subsequently an intravenous pyelogram showed neither kidney to be outlined distinctly, but there was definite excretion of dye into the bladder. There was some difference of opinion as to whether or not there should be immediate exploration. Dr. Bennett, at the X-ray Treatment Centre, recommended Cobalt Bomb therapy to shrink the tumor down, since he felt that the abdomen was so tense that at that time it would be extremely difficult to remove the whole tumor. The child was then given three weeks of intensive Cobalt Bomb therapy and during this period the circumference of his abdomen increased from seventeen and one-half to twenty inches. This being so, the therapy was discontinued.

Aspiration material was reported on by Dr. Hoogstraten as "clear, straw-colored fluid containing squamous epithelial cells, suggesting a cystic



tumor—probably teratoma." A photograph taken at the time demonstrates the fact that the child was, in spite of his hugely distended abdomen, not emaciated at all. The legs and arms were well filled out and there was nothing about the appearance of the face suggestive of a wasting malignant disease. A flat film of the abdomen taken at this time reveals to some degree the extent to which the mass had increased during the five weeks we had been watching him. The

*Report on Clinical Luncheon, Friday, December 4, 1953.

surgical treatment was turned over to Dr. J. T. McDougall who will describe his experience at operation.

Dr. McDougall: Since these tumors occur more commonly on the left than on the right, we made a left transverse incision from the midline into the loin, and opened into the tumor, which was definitely extraperitoneal, and evacuated a large amount of brain-like material which actually turned out to be brain. There was rather profuse bleeding at this time and a transfusion was given under pressure. After evacuating a large amount which unfortunately we did not measure, we were able to deliver a tumor which extended down to and into the pelvis. It had pushed the descending and transverse colon to the right and lay in front of the pancreas, and was firmly attached to the posterior wall of the stomach. When an attempt was made to dissect it off the stomach wall, it was soon obvious that it was incorporated intimately into the wall, a large part of which was resected with the tumor. The upper attachment of the tumor was just anterior to the aorta, between the crura of the diaphragm, and its blood supply was from irregular vessels none of which could be identified. These were tied and divided and there was very little bleeding once the tumor was delivered.

The stomach was sewn up and there was no difficulty in closing the abdomen. The postoperative course was relatively uneventful, and the child responded well and was back on formula within 36 to 48 hours.

Dr. Hoogstraten: This is a very large tumor considering the small size of the infant. The photograph shows that a six-inch ruler would just extend from end to end of the tumor. There are many areas which consist of cysts, and there are other more solid areas within the tumor. One of the solid areas is cut into and consists of soft white material resembling brain, which on microscopic examination was actually glial tissue. One black area in the photograph proved on microscopic examination to be pigmented choroidal epithelium. Scattered throughout this tumor are

multiple adult tissues. Some of these cysts are lined with squamous epithelium, others lined by ciliated columnar epithelium, and there were portions of thyroid within the mass. The chief point of interest was the attachment to the posterior wall of the stomach without true infiltration, but more as if there had been a true pressure necrosis of the stomach wall, with the attachment of the tumor to it with inflammatory tissue. At the point of attachment of the tumor there are bone and cartilage which might have been responsible for the pressure necrosis. The bulk of the tissue within this large tumor is actually adult tissue. There is one disconcerting fact, however, and that is that within the substance of the tumor are a few small microscopic areas of embryonic tissue, in histology resembling the cellular components of a Wilm's tumor. Hence I could not make an unequivocal diagnosis of a benign tumor because there are potentially malignant components. However, these components are well within the depths of the tumor and there was no other attachment of the tumor except to the posterior wall of the stomach, and I would estimate from the gross appearance of the tumor that the child would have a good prognosis.

Question: How has the child done since the operation?

Dr. Popham: When I saw the child a month ago, four months after the operation, he was thriving, gaining well and had no palpable masses in the abdomen. You wouldn't know there was anything wrong with him now.

Dr. Bruce Chown: Isn't that an amazing rate of growth in the tumor during the period under observation from the time of the first X-ray to the second, and could it be accounted for by the reaction in the tumor as a result of the radiation?

Dr. T. Dingle: This question has been raised about this child before, so I took the opportunity to look up the records. The dose of radiation was so small that I can't conceive that it could produce any reaction in the tumor at all.

Dr. G. Fahrni: Was there any skin reaction?

Dr. Dingle: I don't think so. The total radiation was a skin dose of 400 Roentgens given in 16 fractions, and it might well have affected a Wilm's tumor or a neuroblastoma, but you wouldn't expect any reaction in a tumor of this kind. There is no reason to think that it would produce any stimulation of fluid formation or anything like that.

Dr. Colin Ferguson: This tumor comes very close to being a "fetus in fetu." I heard Dr. Chown before the conference ask if there was a history of twinning in the family, and know that in this instance there is no such history. It is interesting that sacrococcygeal teratomas and other similar tumors show a high incidence of twinning in the families, and presumably this has a bearing on the development of this type of tumor.

In general, I doubt if it is a good policy to radiate tumors at any age, before you know what they are. Although some are very radio-sensitive I have always felt a good deal better about removing a tumor, and knowing what is being treated. If radiation does shrink the tumor, the surgeon's job is made somewhat easier, but one takes the chance that during roentgen therapy metastases may occur, and that the tumor may grow even larger despite therapy. The surgeon has very little difficulty in closing the abdominal incision if he can remove the tumor, because there is usually almost an "excess" of abdominal wall remaining. If you cannot remove the tumor it is important that a biopsy be obtained to determine the subsequent therapy. As a general principle, all tumors in children should be considered malignant until proven otherwise.

Dr. Bruce Chown: I'd like to have the opportunity to examine this child's blood. There was an extremely interesting report recently in the British Medical Journal of what was called "A Human Blood-Group Chimera" (from Vol. 11, July 11, 1953, page 81). The case described was that of a woman who came in to give blood at a clinic for the first time—she had never been pregnant, she had never had a transfusion, and when they examined her blood they found that she was both Group O, and Group A. They cast about for quite a while for an explanation and finally remembered that this sort of thing happens in twin cattle, although it had never been reported in man. They asked the woman if she had a twin, and this was the case, her twin having died 25 years before. It seems to me possible embryologically that such a tumor as this, which is so frequently related to a twinning history in the family, and probably does represent the twin, might produce the same kind of picture in the baby's blood, and might be easily missed in an ordinary examination. For this reason I would be very much interested in examining the baby's blood and see if by any chance it does have two blood types.

Dr. Israels: Is there any mucous secreting tissue in the tumor from which mucous could be obtained?

Dr. Hoogstraten: There are mucous secreting glands in the tissue, and as I recall, there is also bone, containing bone marrow. We might have done a blood-grouping on it had we known about this before.

Dr. G. Fahrni: Referring to the problem of early diagnosis again, I wonder if, in a child as young as that, with calcification well in front of the area you would expect it to be in a kidney lesion, this condition — teratoma — might not be the most likely diagnosis.

Dr. Popham: As you know, we were turned aside from our original plan for immediate surgery by the suggestion of the X-ray therapist that an effort be made to reduce the size of the tumor (if it proved to be radio-sensitive).

Dr. Fahrni: Statistically what are the likely possibilities at this age, and in this location?

Dr. Ferguson: Neuroblastoma is a fairly common tumor at this age, and frequently shows calcification by X-ray. It usually grows above the kidney on one side or the other, and displaces the kidney out of its normal bed.

Dr. Chown: It's uncommon though, isn't it, for such a tumor to reach a size that it distends the baby's abdomen to the extent found in this case?

Dr. Ferguson: No, I think it is quite a common occurrence. The majority of abdominal tumors that I have seen in children have had as their presenting symptom — a mass in the abdomen These tumors usually grow very rapidly without symptoms, and it is frequent for the mother to notice that her baby's abdomen is getting larger, and she often will feel the actual mass.

Dr. B. Chown: I can appreciate that this is the case with embryomas, but I wouldn't have thought it was so in the case of neuroblastoma.

Dr. G. Fahrni: Would you expect a child to maintain its nutritional status so well if it had a neuroblastoma or a Wilm's tumor.

Dr. Ferguson: Perhaps not quite, but they usually grow so fast that there often isn't time for the baby to go downhill before admission to hospital. With older children the growth of the tumor is usually slower, and they frequently show evidence of malnutrition.

Dr. Israels: Is there really any point in trying to make the diagnosis before the operation is undertaken?

Dr. Ferguson: No, I think the best course is to operate and find out, and preferably within two days after the child is first seen.

Dr. Chown: The present feeling then about Wilm's Tumor is that it is not desirable to do pre-operative radiation, but rather do surgical excision as soon as possible?

Dr. Ferguson: That is my feeling, but it is not generally accepted everywhere by any means. To a certain extent it depends upon whether the patient is being treated by a Urologist or a Surgeon. An embryoma is usually a very large tumor so it is extremely difficult to remove it through the flank incision favoured by urologists. There just isn't room enough between the costal margin and the iliac crest to deliver the tumor. Thus many urologists prefer to give pre-operative radiation in the hope of shrinking the tumor. Surgeons are more inclined to make a long vertical or transverse abdominal incision through the peritoneum and have a better exposure for removal of the tumor.

My experience with pre-operative roentgen therapy is limited. Sometime ago, at the Boston Children's Hospital, for close to a year every alternate case of embryoma was given pre-operative radiation. The mortality rate in those treated pre-operatively was so much greater than those treated by immediate surgical excision that the experiment was abandoned after only five or six children received pre-operative therapy. From this too small series, it has been decided there, that all patients should be operated upon without pre-operative radiation. All children, however, receive post-operative radiation, since some malignant cells may be left behind, especially if the tumor is broken into during removal. The radiation therapy is commenced immediately after surgery. Some surgeons believe that wound healing is greatly interfered with by radiation, but in Boston they have had no difficulties with their wounds. I recently reviewed all cases of evisceration occurring at the Boston Children's Hospital during the past 20 years,* and this complication did not once occur in a patient receiving immediate postoperative radiation therapy. When one is dealing with a neuroblastoma it is frequently impossible to remove all of the tumor, and immediate X-ray therapy should be given. Unlike malignancy in an adult, even partial removal of a neuroblastoma in a child appears to do some good, as any interference in the tumor's blood supply may induce death of the tumor cells.

Dr. Briggs: Do you routinely go in for the primary neuroblastoma if there are already metastases elsewhere?

Dr. Ferguson: If there are secondaries in bone or bone marrow, surgery is of little avail. If the secondaries are in the liver, however, the story may be entirely different. I have seen several children with severe liver involvement whose liver biopsies showed a preponderance of neuroblastoma cells. Some of these children, who have their primary tumors removed, followed by intensive radiation therapy to the upper abdomen, are alive and well five years after surgery.

II. Children's Hospital No. 53-3215

Presented by Dr. N. Merkeley: This is a fourteen-month-old Indian baby referred quite recently with a mass in the right groin. It was first noted in July of this year by the doctor at Norway House who was at that time on a Treaty Trip, and he felt at that time that it was probably an encysted hydrocele of the cord. The child was brought in again in late October by which time the mass had enlarged considerably as shown in the picture. He still felt it was a hydrocele but when he attempted to aspirate it, and obtained no fluid he referred the child to the Children's

*Abdominal Incisions in Infants and Children. A study of evisceration. Gross, R. E. and Ferguson, C. C. Ann. Surg., 137: 249, 1953.

Hospital. On physical examination the baby appeared to be quite healthy except for the mass in the right groin, which was subcutaneous. One could move the skin easily over it, but it seemed to be relatively fixed to the underlying superior ramus of the pubis. There was considerable discussion about differential diagnosis, but I felt that with these characteristics, and since it was enlarging rather rapidly, it should be considered malignant. One had also to consider the possibility of hernia, but I have never seen any inguinal hernia so large even if it were incarcerated. In any event the tumor, like all such abdominal masses in childhood, was treated as a surgical emergency.

The tumor was beneath the external oblique aponeurosis and was lying in the inguinal canal with the contents of the cord stretched out anterior to it. It was lobulated in appearance and was firmly attached to the fascia, and had to be cut off the symphysis pubis. Dr. Hoogstraten examined the frozen section and called it a lipoma. I was not altogether satisfied with this diagnosis since it seemed to be invading the rectus sheath and was attached to bone, was very vascular, and did not come away like any lipoma I had ever seen. However, we accepted the diagnosis, and after a wide excision of the fascia of the rectus sheath, removed the tumor, and closed with drainage, and the child did very well.

Dr. Hoogstraten: Grossly this tumor consisted of multiple tiny lobules of fat, which looked a little different from the fat that we usually see in the lipomas of adults, being of a more creamy white color, resembling that of veal more than that of beef. Microscopically there were only mature fat cells, nothing to suggest a liposarcoma or any other malignant neoplasia, but rather a benign lipoma.

Dr. Chown: What was this child's diet? The constitution of the fat would depend on the diet at the time.

Dr. Martin: It was on the ordinary ward diet in hospital. I don't know if we obtained sufficient history to be sure whether or not the child was still nursing before it came in.

Dr. Merkeley: It was certainly not like any other lipoma I have ever seen, but Dr. Ferguson tells me that he has seen two or three very similar to this.

Dr. Briggs: Do you do biopsies as a common thing? I was always taught that it was a bad plan to aspirate tumors in children on the ground that if they are malignant you are apt to disseminate them.

Dr. Merkeley: I think there is actually less likelihood of dissemination with aspiration-biopsy than with open-biopsy.

Dr. Briggs: If you believe in the theory that all these tumors should be excised for diagnosis, why aspirate before you go in? If the aspiration is done some time before the exploration, you may have disseminated a tumor which otherwise might have been removed with little or no dissemination.

Dr. Merkeley: I believe that you should not do a biopsy on any tumor unless you are prepared to do something about the tumor. Certainly you shouldn't boipsy them and let them sit for two or three months.

Dr. Briggs: Should you, under any circumstances, put a needle in when you know you are going to go in anyway?

Dr. Merkeley: The object is to try to determine the nature of the tumor you are dealing with so that you can plan how extensive a dissection you are going to carry out.

Dr. Martin: I would like to know, having seen this child, what is the differential diagnosis of a lump in this location?

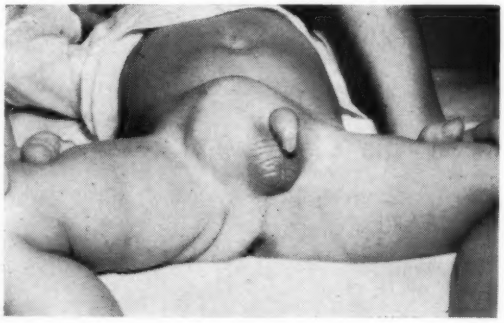
Dr. Merkeley: Well, we had quite a discussion about that at the time, and one of the internes came up with the suggestion that it was probably a lipoma, and I said I didn't believe that at all.

Dr. Ferguson: I have seen two lipomas in this location, and each at operation was not in any way like an adult lipoma. They are very firm and feel as if they had a lot of fibrous tissue in them. They cut with a gritty sensation if you should happen to cut across them. They have a very fibrous attachment to pubis or fascia and are quite unlike the ordinary adult lipoma which is soft and almost semi-fluid, and shells out readily. In this region altogether, I have seen about seven tumors, two of them were lipomas; one was what I call a hemangioendothelioma, (that is, a malignant endothelial tumor) which spread rapidly retroperitoneally and responded temporarily to X-ray but was inoperable because of involvement of bladder, bowel, pubic bone, kidney and internal iliac vessels; and then I've seen about four which also involved bone and by X-ray showed bone erosion. On biopsy these could be diagnosed only as highly anaplastic sarcomas of some sort.

III. Children's Hospital No. 51-3407

Presented by Dr. Merkeley: This was a two and one-half year old child who presented much the appearance of the first child presented here today, with a much less happy result. This child, when I saw it in consultation had been in another hospital for a period of about a month. It had originally been admitted as possible appendicitis, with abdominal pain or discomfort, and distension. It was operated on at the time and the appendix was found to be normal, but a large tumor mass was found intra-abdominally. A biopsy was taken, and following this, the child was given a course of X-ray in the hope of shrinking the tumor. It has already been stated here today that most of these tumors in children should be considered as

semi-emergencies, and that they are primarily surgical problems. Any prolonged course of irradiation in such a child, even if it does no other harm, will do some damage to his epiphyses. Surgical treatment was postponed in this case for about three weeks in an endeavour to get the child in a little better shape, which, looking back on it, was an unfortunate occurrence. When we saw the child, we transferred it to the Children's Hospital, and operated on it about a day and a half after the transfer. At operation, which was done through a large transverse incision, a huge mass presented, attached in the left inguinal region to the symphysis. There was some discoloration of the scrotum, and there appeared to be fluid in the left side of the scrotum. This tumor was attached to the bladder, and the left anterior half of the bladder was resected in continuity with the tumor, which was otherwise relatively free in the peritoneal cavity. The child was in very poor condition, but withstood operation fairly well, and I felt that we had removed the vast bulk of the tumor.



Dr. Hoogstraten: This large tumor measured about seventeen centimeters in diameter. There was a portion of bladder wall attached to it. The cut surface showed large hemorrhagic extremely soft areas, whereas the remaining tissue is a glistening creamy white colour. Microscopically, there are some areas of fairly closely packed delicate spindle-shaped cells, in other areas the spindle-shaped cells are more widely separated in a delicately fibrillar matrix. Some of these larger spindle-shaped cells had some cross-striations within them. The appearance was that of an embryonic tumor, a rhabdomyosarcoma not like those arising from adult muscle, but similar to the myomatous components that one finds in embryomas. It is also similar to, or identical with the extremely soft polypoid or botryoid tumors which are seen in the vagina in young girls. It was my feeling that this was a similar type of tumor to the rhabdomyosarcoma arising, in a boy, from the region of the prostate or bladder.

Dr. Merkeley: We sent the child for post-operative radiation therapy and he was able to get up and walk about after the operation, and lived for a period of about four months. There was recurrence of the abdominal tumor, and gross pulmonary metastases, and the child died.

Obituary

Joseph Norman Andrew

Death came to Dr. J. N. Andrew on Dec. 21st. He was 85 years old and died in harness after 58 years of practice. As if in compensation for the distress of life, Death deals kindly with the old, taking them gently, often in their sleep, as was the case with Dr. Andrew.

Sixty years, two generations, is a long term of service. Dr. Andrew is credited with bringing into the world no less than twelve thousand babies —enough to people a small city. All his years of practice were spent in Minnedosa. He rarely took a holiday and his longest absence was when he himself was ill. He saw his babies grow to manhood and womanhood. He saw them thrive and sicken. His patients were never "cases": they were boys and girls, men and women, whom he knew more fully than did even their parents or they themselves.

When Dr. Andrew commenced practice, being a country doctor was a life of hardship. Snow-blocked roads, miry trails, handicaps of every sort, had to be overcome. In bad times his revenue shrank but not his work. But the rewards were commensurate with the effort. A kindly and skillful doctor finds a place in his patient's hearts that no one else can win. And this is true in rural districts particularly. His faults are quickly recognized and are overlooked in the larger view of his virtues.

Dr. Andrew saw the birth and growth of a new era in medicine. He saw the disappearance of maladies once familiar and the appearance of others that still puzzle us. And through it all he brought to his patients the new things that were of value while still retaining the lessons that his vast experience had taught him.

He was in active practice to the very end, trusted and respected. And now for him "there are no storms, no noise, but silence and eternal sleep, in peace and honour."

J. C. H.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"... but with the natural hormones, the patient receives a 'lift' which is absent in the synthetic ones." Mallin, E.: Am. Pract. & Digest Treat., 5:74, (Jan.) 1954.
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Address

C. W. Burns

President Canadian Medical Association

It is my privilege on this the occasion of your Annual Meeting to bring to you the best wishes of the Canadian Medical Association. At the same time I would like to express our sincere thanks to you Mr. President, and through you our thanks to your entire membership for the magnificent reception and the gracious manner in which we have been received since our arrival here. I speak not only for Mrs. Burns and myself but also on behalf of the visiting speakers from outside your province who have accompanied us.

It was most difficult for me to choose a subject that would be suitable for an address of this nature, but I felt in my present capacity you would expect to hear something of the business problems and activities of your Executive, particularly in relation to those problems which are currently of mutual interest to all of the divisions. There are many but I have selected a few which I believe to be of special interest and importance.

It is obvious that in a country so extensive as ours there are bound to be some divergences of opinion, just as there exist differences in the local problems of each province. It is obvious that strictly local matters can best be dealt with in the business meetings of each division. We will be present at these sessions and I assure you will be only too pleased to offer suggestions and give any help that is within our ability to provide.

The one big issue of mutual interest and importance and the one which unfortunately greets me everywhere I go is that concerning the advent of National Health Insurance. I believe at this stage our course should be judiciously chosen, and that we can best utilize our efforts in consolidating the impressions and suggestions we receive from the various provincial divisions across Canada. Our policy and action will depend largely on the content of any plan which may be forthcoming and its acceptability to the profession as a whole.

It is one of our commitments as your elected Executive to be prepared for any eventuality rather than to stand complacently by and accept on your behalf, without a struggle a scheme of National Health Insurance in any form in which it may perchance be presented to the medical profession of Canada.

I personally continue to have faith in my fellow citizens including those on governmental levels who may have the responsible task of formulating such a program. I am sure they have due respect for the work we are doing as individuals, but there are those who seem to have a contagious desire to control and regiment our activities. Why, I do not know for I think we might be a troublesome and expensive group to manage.

All the political parties have committed themselves to varying degrees of National Health Insurance. It seems to be a popular theme and therefore a popular slogan, in spite of the fabulous expenditures, and the unhappy experience of some of those countries who have adopted it. We must admit that the whole structure and program of life has been altered in two decades. Standards of living have improved, yet the share of responsibility that each citizen is prepared to take on his own behalf is steadily decreasing. More and more pressure is being brought on governments to assume responsibilities formerly regarded as quite personal.

In this unsettled atmosphere, be it for better or worse, we must be prepared to assess, and if need be, challenge, any drastic changes which may be proposed to govern the practice of medicine in this free country.

We are not opposed to a plan which will be beneficial to the people of Canada, and which will provide them with a free choice of doctor. The policy of the C.M.A. is clearly stated in the records of the Annual Meeting held in Saskatoon in 1949. It forms the basis upon which any future negotiations will be acceptable to the Profession.

It seems to be a forgotten fact that up to, and including, the present no Canadian is denied medical treatment be he rich or poor, irrespective of locality, race or creed. In the larger centres the services of the specialists in every branch of medicine and surgery are freely available for those who are unable to pay. Furthermore in University teaching hospitals the public ward patient is assured of the most expert medical attention the locality can provide. The service is free of charge and no remuneration whatever is asked from any source.

It is therefore reasonable to assume that the Medical Profession, a group of trained and public minded men and women, should be the best qualified group to advise and to assist in the formulating of any new medical program if and when it may become a National necessity. In matters at this level there is only one way in which our voice will be heeded and that is if it is the voice of a united profession. We have approximately 15,000 qualified medical practitioners in Canada. Our professional qualifications and requirements are not identical, for many have chosen special fields. The man who is an expert in a chosen specialty is admittedly rendering an essential service, but it is no greater than that of the general practitioner who is informed in a much wider field and practices under somewhat different circumstances. Whether specialist or general practitioner, we are all individualists; to take away our individuality is to rob us of the quality which makes us successful or otherwise, no matter in what field one has chosen to prac-

tice. To retain and justify this individuality and our position in society the members of the medical profession must demonstrate a high degree of personal integrity. Integrity is the greatest attribute that any medical man can possess. If he is honest with himself and with his patients, he is an asset to his community he will be respected by the public, his fellow practitioners, and he will not make many mistakes.

Accreditation of Hospitals

In the past two years the C.M.A. has become involved in the important program of accreditation of hospitals. Formerly this work was undertaken by the American College of Surgeons. The program became so extensive and the project so expensive that it could no longer be borne by this energetic body alone.

The task is now being undertaken by a Joint Commission on Accreditation of Hospitals. It represents a combined effort of the Canadian Medical Association, the American Medical Association, the American Hospital Association, the American College of Physicians, and the American College of Surgeons. It is the aim of the Joint Commission through inspection rating and accreditation, to so stimulate the work done in the general hospitals of this continent, that their standards may be raised to an acceptable level of excellence.

When it became apparent that the standardization program of the American College of Surgeons would be discontinued, certain Canadian agencies, including our own National Association, considered that the time had come when a purely Canadian program should be initiated. As a consequence the "Canadian Commission on Hospital Accreditation" was formed. It consists of the following groups: The Canadian Hospital Association, the Royal College of Physicians and Surgeons of Canada and L'Association des Medecins de la Langue Francaise du Canada.

It soon became obvious that our combined resources, even with substantial contributions from each organization, would not be sufficient to carry out this project, and at the same time to continue the essential contributions to other important projects to which we were already committed.

The aims of the American Commission were identical with ours and we decided that many mistakes would be avoided and much could be gained by our participation in the work of the Joint Commission in the United States for the time being at least.

This suggestion met with the approval of Council. Furthermore, your Executive was instructed to supplement the inspection service in Canada by financing one additional full-time field representative under the guidance of the Joint Commission. It is expected that this service will be initiated in the near future.

Nursing Problem

It is evident that a shortage of nursing personnel exists in all parts of Canada. Whereas we do not accept the responsibility for this situation, it is intimately associated with the general health program and is so vital to the treatment of our patients, that the C.M.A. cannot escape a share of the task of making a survey and assisting in an attempt to increase the number of nurses and nursing aides. We have therefore joined the forces of the Canadian Commission of Nursing.

Despite many efforts to stimulate the recruitment of candidates for a career in nursing, and despite the fact that nursing schools already attract approximately 30% of Canadian girls of matriculation standards, the shortage is widespread and seems to be increasing.

There are two methods of approach to this problem. One, by increased enrolment of student nurses; the other by better utilization of graduate nurses. As practicing physicians we can exert some influence on both aspects. The time spent in training is not wasted. In addition to professional accomplishments it provides a wide educational experience, less expensive than that of many other schools of learning; and in a well organized training school the younger girls are under supervision and discipline.

It therefore would not be amiss if we, as physicians, kept ourselves informed as to the advantages of the course and the entrance requirements, and by so doing encourage the young ladies of our communities to consider thoroughly all of the advantages of a nursing career before undertaking other educational pursuits.

A decrease in wastage could be obtained by discouraging the employment of trained nurses in services which do not utilize the long and special training required in our nursing schools. If we are to be sound in our criticisms we should begin with ourselves. There are many nurses employed in doctors' offices who could be spared and thus freed to make a contribution in the field for which they were specially trained. I often wonder if it is necessary to employ fully trained nurses as hostesses on air-craft where their special training cannot be fully utilized. In making a wide survey of the problem we feel that with the establishment of so many military hospitals across the country, particularly in peace time, it would not be unreasonable to expect them to share in the cost and the program of training, particularly for the special duties required of military personnel. I believe those in charge of these hospital establishments would consider such a suggestion favorably, and would gladly co-operate in any reasonable plan.

There are many less obvious avenues of approach to the attempted solution of this problem. Nurses' aides have relieved the trained nurse of many routine duties and are now accepted in many hospitals. The suggestion of a shorter term of training from three to two years is under consideration.

The tendency is for more and more patients to be treated in hospital, and it does not seem practical to be building hospitals if we, at the same time, are not making a concentrated effort to supply the essential nursing personnel to take care of the increased number of patients that they will house. On the other hand the mere fact that one has insurance coverage is not a sufficient reason to demand hospital treatment for minor ailments. Patients and doctors alike must discipline themselves to use, but not to abuse, these prepaid privileges. It is well to remember that nothing is free, somebody has to pay for the expense incurred.

I am sure you will agree with me that this is a problem the solution of which comes within the scope of our consideration and assistance. We look to you for suggestions and support in the solving of this problem.

College of General Practitioners

I presume that most of you are informed on the progress of this important undertaking. I made reference to it in my address at the Annual Meeting. The decision of the section of general practitioners is to proceed with the formation of a College of General Practitioners of Canada. Some 25 years ago the Royal College of Physicians and Surgeons was fostered and assisted by the C.M.A. Today your council plans to provide the same assistance toward the establishment of a similar project which had been promoted by the section of general practice. Leaders in this new enterprise have been working on plans of procedure for 5 years.

The leaders, all members of our association, have throughout these formative years, taken scrupulous care to avoid disunity and have worked closely and harmoniously with the National and Provincial Associations. These leaders were wisely chosen. It was a great tribute to them that even in periods of discouragement they have kept their bearings; even in stormy seas have held their course. Their purpose is praiseworthy: it is to raise the professional standards and, at the same time, the prestige, of the large group of general practitioners.

I am not very well acquainted with the circumstances which apparently have handicapped the general practitioners in some localities throughout Canada, but I do feel certain that there are many places, including Winnipeg, where the men in general practice have had comparatively few grievances.

In any event, any project which provides a stimulus toward the attainment of increased knowledge, and aims to improve the position of so large a group of our loyal membership, is worthy of all the help and direction that your council can provide.

Just as the Royal College has made mistakes by which it profited I am sure that the College of General Practitioners will also err and also learn by its own mistakes. This is inevitable. I beseech you on behalf of those who struggle in your interests, to withhold your criticisms unless you have something constructive to offer.

In my brief experience as a member of your executive and your council, I am sure the College of General Practitioners will receive sound and sympathetic advice from the specialist groups. I make these remarks at this time for, from a strictly personal viewpoint, and looking ahead into the future, I can see there are going to be difficulties; and there may be, for a time at least, bitter opposition from some minority groups. I have often said, and always believed, that the man who strives to please all of his group all of the time is a weak leader.

Problems involving small or large groups must be considered on the basis of what is fairest and best for the group as a whole. If your basis of thought is sound and unbiased, your decision will be sound and unbiased. Your colleagues will be prepared to overlook your mistakes, for they have the confidence that if mistakes do occur they were not a planned injustice and they can be remedied.

I admit I have labored this point a bit but just as we expect you to have confidence in your C.M.A. officers, so must you have confidence in the officers of your newest undertaking, viz, the College of General Practitioners of Canada. The only reward either of the groups mentioned can ever hope to receive is your sympathetic and undivided support.

In the broader C.M.A. field we are not a trade-union and I hope we will never conduct ourselves as such. But there will be times when your executive will have to speak and act for a united national body. You placed us in this position of responsibility. The effectiveness of your executive in legitimate and proper demands will be as strong or as weak as the support we receive from each and every division in Canada. We must have your loyalty and undivided support if our words are to mean anything.

The next item I am to introduce is one which, naturally, follows the paragraph above and at the moment we are most anxious that it should succeed.

L'Association de Medecins de la Langue Francaise de Canada

The problem to which I refer is our recent endeavour to create a better understanding with the only other chartered Medical Association which exists in Canada. I refer to our professional friends of L'Association des Medecins de la Langue Francaise du Canada.

In the interest of the Unity of the whole profession a series of meetings has been held in Montreal with appointed representatives of L'Association with a view to working out methods of co-operation on common problems at the National level. I am pleased to report that these overtures have been cordially received and a working party has been established to develop a means of liaison between the two National Medical Associations. It seems desirable that closer relationships should exist and the Canadian Medical Association is prepared to go a long way in an endeavour to foster and maintain a better understanding with our French-speaking colleagues.

On January 25th of this year we met with the president and a group of his executive. We clearly stated the purpose of our interview and emphasized the sincerity of that purpose. Our impression of a successful beginning was confirmed by an invitation to return to Montreal last June to continue and consolidate our negotiations. We hope that from these deliberations will emerge a closer association between these two Canadian groups and a better understanding with our French-speaking confreres; one which will be of mutual benefit and which conceivably could reach far beyond the field of medicine.

Additional Government Grants

All of us are concerned with, and interested in, the application of three additions to the National Health Grant program recently announced in parliament. The advisory committee of our association was taken into the confidence of the minister of national health and welfare early in the stage of planning, but since the matters discussed related to government policy, it was not possible to disclose them until parliament had been informed. An unsatisfactory situation, I grant you, but it had some beneficial effects.

The three new grants are:

1. A grant for Laboratory and Radiological Services.
2. A grant for Maternal and Child Hygiene.
3. A Rehabilitation grant.

1. The first of these involves the use of public funds to provide services in areas where such service is not at present available. It could turn out to be the thin edge of yet another wedge. Certainly it is in a field which more closely impinges upon the private practice of medicine than many of the others. We have advised the Department of National Health in general terms of the principles which we feel should apply to the utilization of this grant and have at the same time transmitted to our divisions the same information.

2. The implementation of any extended program for laboratory and radiological services is now a matter for decision in the ten provinces. I hope that this division in common with all others, is active conferring with its Provincial Department of Health to ensure that the expenditure under this special grant will be made to the greatest advantage of our patients without conflicting with the rights of the medical profession.

3. The utilization of the other new grants for maternal and child hygiene and rehabilitation services will command the general support of doctors everywhere.

World Medical Association

There are many other activities of the association with which I could have dealt, but I have made a selection of matters which are currently important to all of us. They affect us all and we must settle them together. Your executive is no stronger than you make it by your loyalty and co-operation. If these are forthcoming we have nothing to fear.

It is also a matter of great pride and satisfaction to the C.M.A. and I am sure all of its members across Canada that our General Secretary, Dr. Clarence Routley, has been chosen as President-Elect of the British Medical Association. He will have the onerous duties of preparing for the B.M.A. meeting to be held in Toronto in 1955.

It is a matter of great regret and concern that Dr. Routley will be retiring as General Secretary at the Vancouver meeting next June. He will, however, be retained on part time duty in a consulting capacity.

In conclusion I have the honour of announcing that Her Majesty the Queen has been graciously pleased to extend her Royal Patronage to our Association. This is a source of pride, and it will be our common duty to conduct our affairs so as to continue to merit this high distinction.

Fig. 1 "*Roentgen examination . . . revealed the ulcer to be very much in evidence.*"

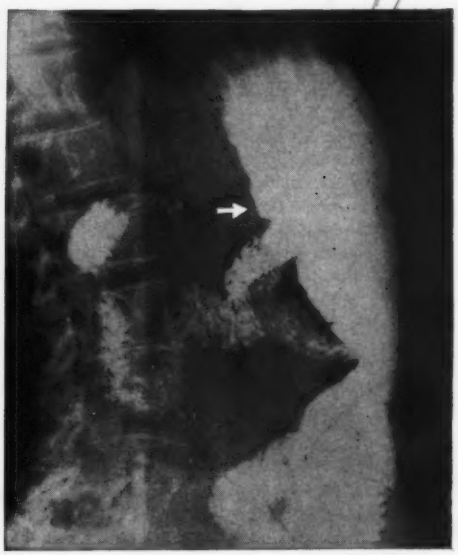


Fig. 2 In ten weeks "*the ulcer niche was no longer in evidence roentgenologically or gastroscopically.*"

Clinical Evaluation of Pro-Banthine®

The case report described below offers significant evidence of the high potency in low dosage of the new, well-tolerated anticholinergic agent, Pro-Banthine.

"M. D., female, aged 48, had a posterior gastrojejunostomy 14 years ago for duodenal ulcer. The patient was fairly well until nine months ago when severe, intractable pains occurred. She was hospitalized and a subtotal gastrectomy was done.

"She remained well for only a few months and was referred to us because of recurrence of very severe pain and marked weight loss. Roentgen study revealed a fairly large ulcer niche on the gastric side of the anastomosis.

"The patient had been on various types of antacids and sedatives without relief from pain. She was given 60 mg. of Pro-Banthine q.i.d. and within 72 hours was able to sleep through the night for the first time in weeks.

"At the end of two weeks of such treatment the patient had absolutely no pain and felt that she had been 'cured.' Roentgen examination at this time revealed the ulcer to be very much in evidence (*Fig. 1*). Much persuasion was necessary to make the patient realize the importance of maintaining her diet and therapy.

"Ten weeks of controlled regulation was necessary before we were satisfied that the ulcer niche was no longer in evidence roentgenologically or gastroscopically (*Fig. 2*).

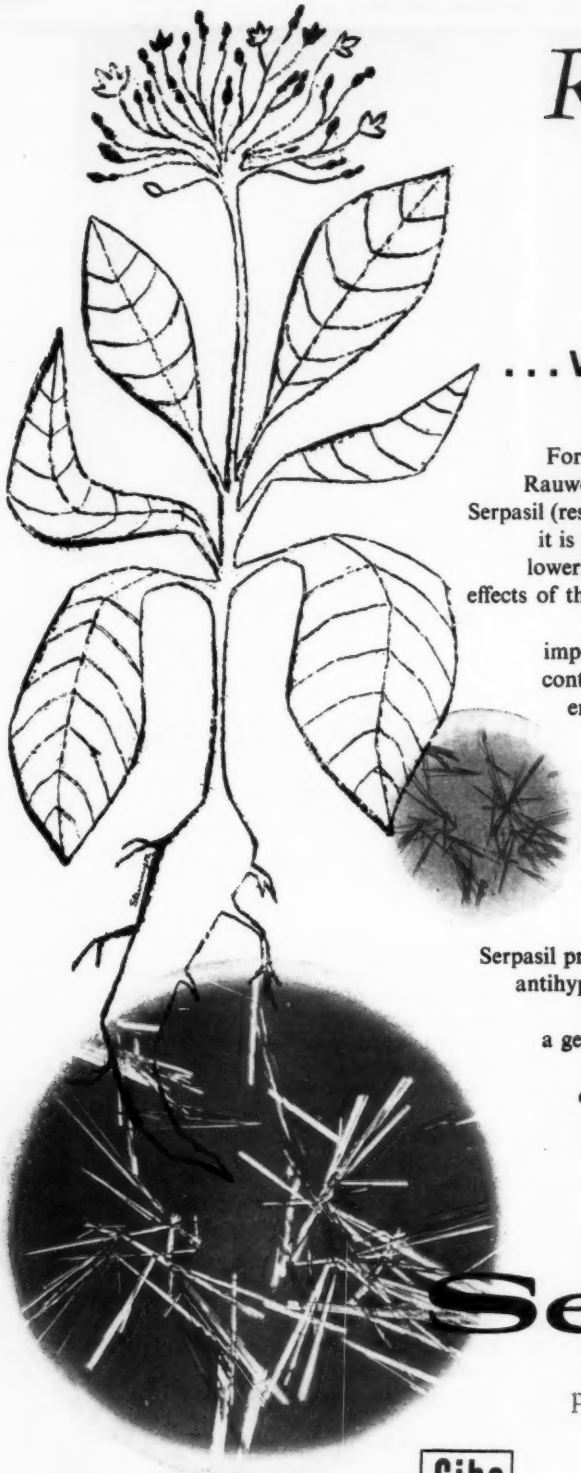
"She has been maintained on 30 mg. [q. i. d.] of Pro-Banthine for almost five months with no recurrence of symptoms."[1]

Pro-Banthine (*brand of propantheline bromide*), the new, improved anticholinergic agent, is more potent and, consequently, a smaller dosage is required and side effects are greatly reduced or absent. It is available in 15 mg. tablets as well as in tablets (15 mg.) with Phenobarbital (15 mg.) and in 30 mg. ampuls.

Peptic ulcer, gastritis, intestinal hypermotility, pancreatitis, genitourinary spasm and hyperhidrosis respond effectively to Pro-Banthine, orally, combined with dietary regulation and mental relaxation.

Research in the Service of Medicine.

1. Schwartz, I. R.: Personal communication, Feb. 9, 1953.



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Serpasil provides a wider range of usefulness than other antihypertensives because of apparent freedom from contraindications, its wide margin of safety, a gentle calming and relaxing action, and because it may be used in combination with other antihypertensive agents for severe cases.

Availability: tablets of 0.1 mg. and 0.25 mg., bottles of 100 and 500.

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Editorial

J. C. Hossack, M.D., C.M. (Man.), Editor

Dr. Burns' Address

The responsibilities of office are felt far more acutely by those who hold office than by those who elect them to it. That is natural; but I am sure that the men so elevated would appreciate a greater show of interest by their electors.

The Presidents of our Societies and Associations have, without exception, taken their duties seriously and have served us well and very often, usually in fact, this has been at the cost of their own convenience, time and money. The extent of their sacrifices we rarely discover or even realize but they are not grudged by those who make them.

The higher the office the greater the burden laid upon its holder. The Presidency of the Federal Association is not a sinecure. On two or three occasions the President finds himself in the glare of spot lights. The rest of his two active years is spent in the performance of duties which receive little publicity but which require much thought, much consultation and much careful decision. The interests and problems of every one of the ten Provinces must be given consideration and every Province must be visited at least twice each year.

The President-Incumbent has had a more than usually difficult task. The ordinary comparatively easy year as President-Elect was for Dr. Burns a hard one because of the untimely death of his predecessor. Almost without warning he found himself playing a role which he had no opportunity to rehearse. He accepted these unlooked for difficulties as a challenge and we have it from those associated with him that the speed with which he gained a mastery of affairs called forth their admiration.

In every Province he was called upon to speak on various matters and in each he gave a major address basically the same in all cases but modified to suit the particular needs of each audience. This basic address we print herewith. Nowhere was exception taken to any part of it, and everywhere it was endorsed by those who heard it. It can thus be regarded as the utterance of a leader speaking for those whom he leads.

. . . . . .

We hope to publish shortly another communication from Dr. Burns. What do any of us know about the work demanded of our National President? How does he spend his time during the two years when, as President-Elect and President-Incumbent our affairs are his chief concern?

We feel that such information would not only be instructive but might arouse a greater interest in those who so carefully direct our business. We are all too much inclined to take for granted that things will be well managed. We forget that good management is an active affair, that when things are done well it is because they are in capable hands.

The benefits which we enjoy (almost without thanks) come from the hard work of our officers. It is only fair that we should appreciate the effort that goes into the services they render and our obligation to the servants by whom these are rendered.

The Ugly Word

There is a naughty word which is not even whispered in polite and ethical circles unless one wishes to call forth violent, vigorous and vehement denunciations. This ugly word is "fee-splitting." Because it has such a hateful sound let us "greekify" it and call it dichotomy. Not only does that sound better but dichotomy suggests something that has to do with surgery which it certainly has.

At the moment fee-splitting is very much in the air. Almost all the local hospitals have been revising their constitutions and all, without exception, insist upon every doctor undertaking to refrain from giving or accepting, directly or indirectly, any part of a fee on the penalty of being refused the privileges of the hospital.

And a few months ago a United States magazine came out with "Why Some Doctors Should be in Jail" splashed over its cover. The crime was, of course, fee-splitting. The writer of the article was careful to repeat from time to time that only a "small minority" of doctors was guilty of this most reprehensible practice. One wonders if the author believed his own statement. Could a really small minority stir such a furor?

If what we read and hear be true unethical practices are not rare in the United States. There are, of course, a great many doctors in the United States and a correspondingly large number of black sheep so that comparisons cannot be exact. Our ways of life are different. But a survey of our own Provinces reveals that dichotomy is practically non-existent in this Her Majesty's Realm of Canada. Nine out of ten provinces reported through their College Registrars that: "Fee-splitting is non-existent in this Province"; "There is no such practice in this Province"; "To the best of my knowledge it is non-existent here"; "It has not been known for twenty-five years in this Province." And so on, and so on. According to the Registrars we are whiter than white, brighter than bright. How comes it then that we are accused of

being tattle-tale grey? But suppose that the Registrars (who are not omniscient) are wrong and that there is a spot of fee-splitting going on here and there, what then? How bad a practice is it?

The license of every qualified practitioner permits him to practice surgery. Unlike an insurance contract there is in it no small print to take away what is given by the large print. Nor do I see how any individual or group of individuals can legitimately curtail or take away from anyone the rights and privileges conferred upon him by law. Ergo, as the law now stands, a person qualified by law to practice surgery is qualified by law to operate.

Now, the practice of medicine being what it is, a great deal depends upon the honesty of the practitioner. Not unto all men are given equal gifts. Wisdom and judgment are not possessed by all. By the law of averages there are bound to be some rash and fool-hardy persons who will attempt what they cannot accomplish. Folly, not dishonesty, is their usual fault; becaues, with few and rare exceptions, doctors deal honestly with their patients. When a matter is beyond their scope they readily admit it. Even if for nothing else but a selfish care for their own reputations they avoid, rather than risk, disaster. Thus, when faced with a problem that can be solved only by means beyond their competence, practitioners do not have to be urged to seek or accept competent help.

In such circumstances it has been known for occasional operators or slightly surgical practitioners to introduce a surgeon to a sleeping patient and otherwise keep him out of sight. That, of course, is beyond condemnation, and it is a most heinous fault in the surgeon if he permits himself to be a party to such deception. But the patient need not suffer.

Usually when a practitioner is in need of surgical help he suggests, or arranges for, a surgical consultation after which the surgeon takes over the case. To the practitioner there is the immediate loss of the surgical fee but he may lose more than that. If Dr. Nickleby refers Mr. Jarndyce to Dr. Petowker for operation it is quite possible that the next time the Jarndyce family have need (or think they have need) of surgical attention the member concerned will go directly to Dr. Petowker. "What's the use of going to Nickleby" they will say "He'll just send you to Petowker so why not go to him directly?" Which is done.

And it is quite possible, if the interval in time has been long enough, for Petowker to forget that the Jarndyces came to him originally from Nickleby and he may send one or more of them to Dr. Chuzzlewit or to Dr. Tulkinghorn. And so a family is lost; not deliberately diverted but diverted none the less and so lost. The doctor-patient relationship is threatened every time another doctor enters the scene.

The non-operating practitioner has, however, an alternative. He can take Jarndyce to Dr. Dombey (or the other way about), and after Dombey has made his examination and decided that an operation is **indicated** (not merely justified) Nickleby can say to his patient "Dr. Dombey and I will look after you. The work will be done properly and the fee for both of us will be (say) $100.00 which you will pay to me or to Dr. Dombey as we shall arrange." It is difficult to see anything wrong in two honest men planning an honest piece of work and honestly sharing an honest fee.

The only legitimate concern of the Profession as a whole is that accurate diagnosis be followed by proper treatment and that the patient be not over-charged. All that Jarndyce wants to know is that he will have a "good" operation at a cost within his means. Jarndyce cares not one straw how the money is divided. If Nickleby is content with five dollars or Dombey is satisfied with fifty dollars it is all right with him. He wants his "good" operation and he wants to know how much he has to pay—that is all.

Now, whether Jarndyce is operated on by Petowker or by Dombey one thing is certain—he will expect daily visits from Nickleby. If Nickleby fails to put in an appearance before and after the operation Jarndyce will take it as evidence of lack of interest. Therefore, in order to "hold" his patient, Nickleby must make these daily visits to say nothing of others after the patient has left hospital.

These visits are not without their therapeutic importance. Remember, Nickleby knows infinitely more about Jarndyce as a person than does the surgeon. Nickleby (if he has the confidence of the Jarndyces) can do all sorts of things, little and big, that bring comfort and ease to both the ailing patient and his anxious family. The family in particular is far more likely to turn to the friend than to the stranger when intimacy has begot trust.

Now, these daily visits, these comforting assurances, are a useful service from which the patient benefits. Is not that professional care? And isn't it worth something to Nickleby? Yet, if Petowker is an ethical surgeon-specialist any payment for such service, even though it has to do with the surgical condition, must come as a separate expense upon Jarndyce. It cannot come out of the surgical fee. If Jarndyce can pay, good and well; if he can't pay, Nickleby is out of luck.

That is palpably unfair. Nickleby made or at least suspected the diagnosis; he endured the anxiety common to every conscientious doctor when his patient is going through a critical time; he advised, aided and encouraged both patient and family. These are not minor services but they cannot be paid out of the major fee which may

be all the patient can stand.

A surgeon-specialist who gets much work from a practitioner must feel under an obligation to his friend. The referring doctor may have made but a single visit and is therefore entitled to only a single (and small) fee—a fee which the surgeon recovers in less than two minutes. I imagine that many quite ethical surgeons would be glad if there were a way for them to reimburse practitioners, not for sending their patients but for the assistance given and the work done during the time of illness. Of course in some cases it is possible that Petowker may give Nickleby something unimportant to hold or even let him play a more active role so that he may be entitled to claim an assistant's fee.

But the surgeon's fee must not be "split," therefore if there is to be any compensation for the practitioner it must take some form other than cash. What form it takes depends upon the ingenuity of the surgeon, and surgeons do not lack ingenuity. Some will feel that a gift of any sort might be misconstrued but others, moved by gratitude or appreciation or a sense of justice—call it what you like—will find some quid pro quo. How could it be otherwise?

The problem arises chiefly, if not only, in the case of patients not on M.M.S. When the patient enjoys that protection things are much easier. In that case Nickleby would get twenty-five dollars for a diagnosis leading to operation. Dr. Petowker perhaps and Dr. Dombey certainly, would allow him to cling to the unimportant instrument or actively assist during the operation, a procedure which, in a hundred-dollar operation, would net him fifteen dollars. Further, if some medical ailment is present or crops up after the operation he can claim another fifteen dollars for attending to it. Thus Nickleby stands to gain anything from twenty-five dollars to fifty-five dollars which is fair enough.

Now, if such an arrangement be perfectly legitimate in the case of a patient on M.M.S. why should it be wrong to do the same thing when the patient is not on M.M.S.? If Nickleby does nothing he should be paid nothing, but if he makes the diagnosis and gives the patient attention he should be paid for it.

It is assumed by some that the lure of a fee will induce practitioners to place their patients in the hands of unscrupulous or inexperienced surgeons. Perhaps this may be true elsewhere. It is not true here. There are exceedingly few practitioners anywhere who would jeopardize their patients for the sake of a fee which they might lose ten times over if the result were bad.

But if Petowker and Dombey differ little in skill and judgment, and Dombey acknowledges (which Petowker doesn't) that Nickleby's services should not go uncompensated, then is it not logical to engage Dombey? Petowker need not feel that Dombey is taking an unfair advantage of him. The chances are that the M.M.S. cases are handled in the same way by both men. The difference is that Dombey applies the same rule to all referred cases. Were Petowker to do likewise how could he lose caste? And would it not remove the stigma that now attaches to him—he won't share a fee because he wants it all for himself? And would it not put out of business any incompetent operators who might use the "split" as a bribe?

It is wrong for a surgeon to "hawk" his services. It is wrong for one to pretend that he has done what he has not done. It is wrong to ask for payment when no services have been rendered. It is wrong to take with one hand an earned share of a fee and stretch out the other for a second fee from the patient. But obviously it is not wrong to share the fee as is done in the case of the M.M.S. patients.

If the rule that applies to these were of universal application the ugly word would no longer have even to be whispered. It would have lost its meaning.

The Doctors' Doctor of the Year
Patrick Herman McNulty

Perhaps next year we may conduct a wider and more formal poll. Last year the idea did not occur early enough to get the name in print for the January, 1954, number. But a little poll of representative cross-section resulted in the title of "Doctors' Doctor of the Year" going to Pat McNulty. There is also a "Laymen's Doctor of the Year" who is Dr. Hildes, the efficient Superintendent of the Municipal Hospitals and Director Extraordinary of Polio Treatment.

Dr. McNulty's service has been to the profession chiefly although in such a manner that the public also has benefitted. The magnificent new Manitoba Medical Service Building is his monument.

It was difficult to persuade Dr. McNulty to take an interest in medical business. Eventually, in 1943, he was coaxed to run for vice-president of of the Winnipeg Medical Society. Next year he was elected President and did an excellent job. Then came the vice-presidency and next the Presidency of the Manitoba Medical Association. Being an excellent organizer and of a most pleasing personality he got things done. In this regard he resembles functionally, as he resembles physically, Sir Winston Churchill.

While President of the M.M.A. he gave a dinner to the members just re-entering practice after the war. He sent invitations to the ladies also but on these he wrote "Sorry, gal, but it's a stag" and then, as if to take out the sting of disappoint-

ment, he sent with each of these cancelled invitations a box of roses.

His interest in the M.M.S. began when on the Executive of the M.M.A. Since then he has been most closely associated with it. He has not only been treasurer and chairman but also guiding genius of the scheme. No one has worked harder to make successful an enterprise which has been so beneficial to our profession and our patients. Not only has he devoted that amount of his time which would be expected of him but almost all his leisure and, indeed, not a little of his working time.

It is his nature to put all his energy into whatever he does whatever the cost may be, and no one could work so hard in the common interest without suffering in his private interest. His organizing ability, his complete sincerity and openness, enabled him to institute and carry out measures without friction and with great success. People instinctively trust those who say what they mean and mean what they say.

The magnificent new building is his achievement. Thanks to him we enjoy the use of our own building at great present and future savings. The building and its method of financing we owe chiefly to his vision and ingenuity.

The Trans-Canada Plan also is his debtor, for, if the conception was not his, the smoothness with which it came into operation was his.

We have had few colleagues who have served us so well: none who have served us better.

Poliomyelitis in Manitoba, 1953

Now that we are past the year end and our epidemic seems to be over, at least for the time being, we are in the process of assessing various factors about it. One of these is Gamma Globulin. Over four thousand intimate contacts of Poliomyelitis cases with paralysis were given Gamma Globulin supplied free of cost by the Department of National Health and Welfare and distributed by the Provincial Department of Health and Public Welfare. We have tried to keep careful record of those who received Gamma Globulin and checked our notification of cases against these persons. To date we have discovered twenty-five cases who had Gamma Globulin before onset of illness but only seven who had the Gamma Globulin six days before illness. Of these seven only two had paralysis and that was slight.

In case we have missed any who had Gamma Globulin and then developed Poliomyelitis it would be of definite value to know this. In your individual knowledge do you know of any? If so please get in touch with me as soon as possible. I wish to know the name, address, age and sex of the case; the date the Gamma Globulin was given and the amount; the date of onset of illness, whether any paralysis or not and final outcome (complete recovery, residual paralysis and extent or death). We also wish to know the name and address of the paralytic case with whom the secondary case was originally in contact.

Telephone 3-7131, write or drop in, Preventive Medical Services, Department of Health and Public Welfare, 320 Sherbrook Street, Winnipeg, Manitoba.

District Societies Meeting

A joint meeting of the Brandon and District and Northwestern Medical Societies will be held in Brandon on Wednesday, February 24th, 1954, starting at 4 p.m. Business session 4 p.m. Dinner 6.30 p.m. Scientific Session will be presented by the Brandon Practitioners. Scientific Session 8 p.m.

All medical graduates cordially invited to attend.

V. J. H. Sharpe, M. D.,
Secretary.

P.S. — Bring your wives and sweethearts — special entertainment for them.

Letter to the Editor

January 12th, 1954.

The Editor,

Sir:

1. Who is the author responsible for the blood curdling tale of suspense which disgraced the pages of your January issue? 2. Why is he hiding under a cloak of anonymity? 3. Is he a shrinking violet?, or 4. Does he shun publicity because he is ashamed of his misdeeds?

The latter is probably the answer, for the way he treated the poor innocent girl who worked for him and probably gave him the best years of her life, is shameful indeed. 5. Should it be impossible for you to reveal the identity of the author, could you, perhaps, obtain from him the telephone number of poor Amber, so that I may offer her employment and consolation.

Pater Sucrus, M.D.

1. Vaisrub. 2. Heaven knows. 3. Ha, ha! 4. He is incapable of shame. 5. Request refused; ask him yourself.

He tells me that he has engaged a new receptionist whom he describes as "highly respectable."

Editor.

A vagal blocking agent for peptic ulcer with LOW incidence of SIDE EFFECTS

PRANTAL methylsulfate (diphenmethanil methylsulfate) is an effective anticholinergic agent for treatment of peptic ulcer. Pain, pyrosis, nausea, and other symptoms of this syndrome are rapidly relieved. Troublesome side effects seldom occur.

PRANTAL

Prantal Tablets
(plain—scored) 100 mg.
Prantal Repetabs 100 mg.
(Repeat Action Tablets)
Prantal Injection
25 mg. per cc. 10 cc.
Prantal 100 mg. with
Phenobarbital Tablets ¼ gr.

PRANTAL
methylsulfate

Schering CORPORATION LIMITED, MONTREAL

Association Page

Reported by M. T. Macfarland, M.D.

Income Tax Information

Individuals whose income—(a) is derived from carrying on a business or profession (other than farming); (b) is derived from investments; or (c) is more than 25% derived from sources other than salary or wages, are required to pay their estimated tax by quarterly instalments during such year. Each payment must be sent in with Instalment Remittance Form T.7-B Individuals. Any balance of tax is payable with interest with the T.-1 General return which is due to be filed on or before April 30 of the succeeding year.

The following timetable indicates the returns required.

A. Doctors **Not** receiving salaries amounting to ¾ of income:

Date Due	Forms to be Used
March 31	T.7-B Individuals
April 30	T.1 General
	(Note: Only doctors deriving their full professional income from salaries may use Form T.1 Short).
June 30	T.7-B Individuals
September 30	T.7-B Individuals
December 31	T.7-B Individuals

B. Doctors receiving salaries amounting to ¾ or more of income:

Date Due	Forms to be Used
April 30	T.1 General
	(Note: Doctors deriving their full professional income from salaries may use Form T.1 Short).

Whenever Status is changed* T.D.-1.

*With respect to new employer, marital status, dependents.

Doctors who pay salaries to their own employees are required to send in Form T.-4 by the end of February each year.

DOMINION INCOME TAX RETURNS BY MEMBERS OF THE MEDICAL PROFESSION

As a matter of guidance to the medical profession and to bring about a greater uniformity in the data to be furnished to the Taxation Division of the Department of National Revenue in the annual Income Tax Returns to be filed, the following **matters are set out:**

Income

1. There should be maintained by the doctor an accurate record of income received, both as fees from his profession and by way of investment income. The record should be clear and capable of being readily checked against the return filed. It may be maintained on cards or in books kept for the purpose.

Expenses

2. Under the heading of expenses the following accounts should be maintained and records supported by vouchers kept available for checking purposes:

(a) Medical, surgical and like supplies;

(b) Office help, nurse, maid and bookkeeper; laundry and malpractice insurance premiums.

*(*If in a private home and the maid would clean the office, a portion of her wages could be counted as an expense.)*

(It is to be noted that the Income Tax Act does not allow as a deduction a salary paid by a husband to a wife or vice versa. Such amount, if paid, is to be added back to the income).

(c) Telephone expenses;

(d) Assistants' fees: The names and addresses of the assistants to whom fees are paid should be furnished. This information is to be given each year on Income Tax form known as Form T.4, obtainable from your District Income Tax Office;

(e) Rentals paid: The name and address of the owner (preferably) or agent of the rental premises should be furnished (see (i));

(f) Postage and stationery;

(g) Depreciation: A description of the treatment of depreciation may be found on page four of the Income Tax Return form T.1 General under the Part XI Method.

The method of computing depreciation for tax purposes is the same as that used last year and you should have no difficulty if you have a copy of last year's return available.

Simply carry forward the balance remaining in each class after deducting last year's allowance. Add to this figure the cost of any new equipment purchased and deduct the proceeds from any disposal of property in each class. The rate you wish to use not exceeding the maximum rate (see below) is applied to this new balance for each class to obtain the depreciation you may claim this year.

The schedule on page four of the Income Tax Return is reproduced below for your information. Column (6) does not apply to doctors, the other columns are self-explanatory.

The maximum rates for the classes of equipment most used by doctors follow:

Capital Item	Class	Annual Maximum Depreciation
Medical Equipment:		
(a) Instruments Costing over $50 Each and Medical Apparatus of Every Type	8	20%
(b) Instruments Under $50 Each	12	100%
Office Furniture and Equipment	8	20%
Motor Car	10	30%

Building (Residence Used Both as Dwelling and Office) 3 5%

*(*If the building is frame or stucco on frame, it could be classified under No. 6 at 10% depreciation.)*

Instruments costing less than $50.00 each belong in class 12 and have a maximum allowance rate of 100%. They should not be included in expenses but should be recorded as additions in columns 3 of the schedule.

Where a doctor practises from a house which he owns and resides in, the allowance may be claimed as above on a portion of the cost of the residence, excluding land. For example if the residence were a brick building costing $12,000 and one-third of the space were used for the office, the doctor would use $4,000 as the business portion of the cost and apply the building rate of 5% to determine the maximum depreciation allowable in the first year.

For further information on the subject you may refer to the Regulations or you may consult your District Income Tax Office.

The above allowances will not exceed one-third of the total house expenses or rental unless it can be shown that a greater allowance should be made for professional purposes.

(j) Sundry expenses (not otherwise classified) —The expenses charged to this account should be capable of analyses and supported by records.

Claims for donations paid to charitable organizations will be allowed up to 10% of the net income upon submission of receipts to your Income Tax Office. This is provided for in the Act.

The annual dues paid to governing bodies under which authority to practise is issued and membership association fees, to be recorded on the return, will be admitted as a charge. Initiation fees and the cost of attending post-graduate courses will not be allowed.

(k) Carrying charges: The charges for interest paid on money borrowed against securities pledged as collateral security may only be charged against the income from investments and not against professional income.

(1) Class Number	(2) Undepreciated Capital Cost at Beginning of 1951 (Col. 10 of 1950 return)	(3) Cost of Additions During 1951	(4) Proceeds from Disposals During 1951	(5) Undepreciated Capital Cost before 1951 Allowance (Col. 2 plus 3, less 4)	(6) Net Deferred Assets	(7) Amount on which 1951 Allowance is Calculated (Col. 5 less Col. 6)	(8) Rate %	(9) Capital Cost Allowance for 1951	(10) Undepreciated Capital Cost Less Deferred Assets (Col. 7 less Col. 9)

(h) Automobile expenses: (One Car). This account will include cost of license, oil, gasoline, grease, insurance, garage charges and repairs;

The capital cost allowance is restricted to the car used in professional practice and does not apply to cars for personal use.

Only that portion of the total automobile expense incurred in earning the income from the practice may be claimed as an expense and therefore the total expense must be reduced by the portion applicable to your personal use.

The mileage rate permitted in years prior to 1950 may no longer be used to estimate the automobile expenses.

(i) Proportional expenses of doctors practising from their residence:

(a) Owned by the doctor. Where a doctor practises from a house which he owns and as well resides in, a proportionate allowance of house expenses will be given for the study, laboratory, office and waiting room space, on the basis that this space bears to the total space of the residence. The charges cover taxes, light, heat, insurance, repairs, capital cost allowance, and interest on mortgage (name and address of mortgagee to be stated);

(b) Rented by the doctor. Only the rent and other expenses borne by the doctor such as heat and light will be apportioned inasmuch as the owner takes care of other expenses.

*(*If the money is borrowed for use in business or profession, carrying charges could be allowed against professional income.)*

(Professional income can be reduced by an investment loss.)

**Information supplied by the Income Tax Dept.*

**Information supplied by the Income Tax Dept.*

(l) Business tax will be allowed as an expense, but Dominion, Provincial or Municipal income tax will not be allowed.

Convention Expenses

"Effective January 1, 1948, the reasonable expenses incurred by members of the medical profession in attending the following Medical Conventions will be admitted for Income Tax purposes against income from professional fees:

1. One Convention per year of the Canadian Medical Association.

2. One Convention per year of either a Provincial Medical Association or a Provincial Division of the Canadian Medical Association.

3. One Convention per year of a Medical Society or Association of Specialists in Canada or the United States of America.

The expenses to be allowed must be reasonable and must be properly substantiated; e.g., the taxpayer should show (1) dates of the Convention; (2) the number of days present, with proof of claim supported by a certificate of attendance issued by the organization sponsoring the meetings; (3) the expenses incurred, segregating between (a) transportation expenses, (b) meals and (c) hotel expenses, for which vouchers should be obtained and

kept available for inspection.

None of the above expenses will be allowed against income received by way of salary since such deductions are expressly disallowed by statute."

Central District Medical Society

A Dinner Meeting of the Central District Medical Society was held at the Mayfair Hotel, Portage la Prairie, on the evening of Monday, December 14th. Present were:

Drs. H. S. Atkinson, J. A. Eadie, G. C. Fairfield, G. H. Hamlin, H. J. G. Hughes, J. W. Kettlewell, G. H. Lowther, R. E. Renaud, J. C. Rennie, C. M. Thomas, I. B. Thomson, Portage la Prairie; M. E. F. Koziol, MacGregor; T. W. D. Miller, Oakville; F/L Henry, R.C.A.F., Southport; F/L Kerrigan, R.C.A.F., Southport; F/L Stuart, R.C.A.F., Macdonald; C. W. Clark, M. T. Macfarland, J. K. Martin, W. F. Tisdale, Winnipeg.

Following a reception and dinner the meeting was called to order by Dr. G. H. Hamlin who introduced Dr. W. F. Tisdale of the Manitoba Medical Association. Dr. Tisdale congratulated the Society on the fine turnout of members and briefly reviewed some of the work of the Association during the past years in connection with Fee Schedule and Manitoba Medical Service. He suggested that the District Representative inform the members of the activities of the Association following attendance at the meetings of the Executive Committee. Dr. M. T. Macfarland, Executive Secretary of the Association, also spoke briefly.

Scientific Program

Dr. J. K. Martin spoke on "Diarrhoea in Children" and passed mimeograph copies of an outline for "Parenteral Fluid Therapy in Infants and Children" which is commonly used in Children's Hospital. Dr. C. W. Clark spoke on "Postoperative Parenteral Fluid Balance" and also presented an outline of the technical points involved. Each paper was presented in concise, practical form and the audience participated in the discussion.

Election of Officers

The officers for the ensuing year are as follows:

President ..... Dr. J. C. Rennie
Vice-President ..... Dr. G. C. Fairfield
Secretary ..... Dr. C. M. Thomas
Representative to Executive Committee, M.M.A. ..... Dr. G. M. Black
Representative to Executive Committee, G.P.A.M. ..... Dr. J. W. Kettlewell

Winnipeg Medical Society

Reported by R. H. McFarlane

The regular meeting of the Society was held on the 18th of December at the Medical College.

The first item of business was a notice of motion entered by Dr. Murray Campbell, Chairman of the Membership Committee. The motion would have the effect of allowing certain full time medical teachers who were not licensed to practice to become active members of the Society in the ordinary way. It is hoped that this motion when it comes to a vote in February will be endorsed by the Society.

The Scientific Program consisted of three short but interesting papers. The first by Dr. J. M. Kilgour dealt with toxic reactions to modern antibiotics. He listed three mechanisms by which such reactions might occur:

(1) Allergic, (2) direct toxic reactions, (3) microbiological. He mentioned that the overall incidences of such reactions might be as high as 5 per cent of those receiving antibiotics although many of the reactions were only of minor importance. With regard to Penicillin he mentioned the occurrence of skin and mucous membrane reactions from topical use, urticarial reactions, and anaphylaxis which may sometimes be rapidly fatal; the development of Henoch-Schoenelein's Syndrome and the very occasional development of illness suggesting periarteritis nodosa and disseminated lupus erythematosis. However, it was emphasized that Penicillin is the most widely used antibiotic and that due to its efficiency this was rightly so. With regard to Streptomycin, Dr. Kilgour mentioned the effect of the vestibular portion of the 8th cranial nerve and mentioned that this difficulty might be encountered quite frequently when more than 25 to 30 grams of Streptomycin were used. He pointed out that Dihydrostreptomycin had very little advantage over the older Streptomycin since it had a similar effect on the cochlear division of the 8th nerve. Mention was made too of the very rare occurrence of damage to the bone marrow from Chloromycetin and he spoke at some length about serious and even fatal cases of gastroenteritis in patients receiving Aureomycin or Terramycin. This was considered due to the fact that a certain amount of the intestinal bacteria were exterminated and that this allowed overgrowth of other organisms such as monilia and some strains of staphlococcus aureus which were not sensitive to the particular antibiotics.

The second paper was presented by Dr. Sydney Israels concerning the use of parenteral fluids and electrolytes in infants. In this regard he was interested mostly in the treatment of infantile diarrhoea and emphasized the very gratifying

decrease in mortality from this condition with the proper use of intravenous fluids. As indications for the use of intravenous fluid he mentioned particularly persistent vomiting, deficient oral intake of fluid for any reason, and the fact that in some instances diarrhoea might be made worse by the administration of oral fluid. He mentioned that the most likely deficits in the extracellular fluids in these infants would be sodium, chloride and potassium. The amount and character of the solution to be given depended upon the state of kidney function and he suggested the use of lactate and saline only until it was known that the kidney was secreting urine after which potassium could be used as well. He mentioned the necessity of providing approximately 150 ccs. of fluid for each kilogram of baby per day.

The third paper was presented by Dr. O. A. Schmidt and dealt with the use of Oxytoxics. He pointed out that in the vast majority of normal deliveries such drugs might not be indicated at all and suggested they be used only when the proper indications occurred. He then went on to mention certain incompatibilities occurring between commonly used anaesthetic agents such as Cyclopropane and Pentothal and the pituitary extracts. In particular because of vasopressor effects of pituitrin, he suggested that Pitocin might better be used. Dr. Schmidt spent a good deal of his time describing the use of Pitocin drip in cases of true uterine inertia and in the induction of labor, but he and the several obstetricians who discussed his paper after, felt that a great deal of caution was in order in the use of this agent if, indeed, it should be used at all. He did, however, mention that it might be quite favourable in instances of post-partum hemorrhage. This, however, is a very different circumstance from using this agent while the fetus is still in the uterus.

International Congress of Ophthalmology

Canada will share with the United States the honor of being host to the XVIIth International Congress of Ophthalmology, which will meet in Montreal, Sept. 9-11, 1954, and in New York, from Sept. 12 to 17th, 1954. Inquiries regarding the Congress as a whole should be addressed to the Secretary-General, Dr. William L. Benedict, 100 First Avenue Building, Rochester, Minnesota, U.S.A. Inquiries relating solely to the Montreal portion of the Congress may be mailed to the Associate Secretary, Dr. G. Stuart Ramsey, Physical Sciences Centre, McGill University, Montreal.

College of Physicians and Surgeons of Manitoba

Specialist Committee

October 9, 1953

The fourth meeting of the College of Physicians and Surgeons Committee to set up a Specialist Register was held at 1 p.m., in the Medical Arts Club Rooms, on Friday, October 9th, 1953.

Present were Dr. C. H. A. Walton, Chairman, C.P. & S.; Dr. F. K. Purdie, C.P. & S.; Dr. F. G. Allison, M.M.A.; Dr. B. D. Best, Faculty of Medicine, U. of Man.; Dr. N. L. Elvin, Faculty of Medicine, U. of Man.; Dr. C. E. Corrigan, President, C.P. & S., ex-officio, and Dr. M. T. Macfarland, Registrar, C.P. & S., ex-officio.

The Chairman read the names of four members, with Royal College standing, whose names had been entered on the Specialist Register since the last meeting of the Committee held June 22nd, 1953.

Of the fourteen applications considered, seven were granted Specialist Registration, four were deferred pending receipt of additional information, and three were referred to Council.

Council Meeting

Winnipeg, Manitoba,
October 17, 1953.

The Sixty-eighth Annual Meeting of the Council of the College of Physicians and Surgeons of Manitoba was held Saturday, October 17th, 1953, at 10 o'clock a.m., at the Medical College, Winnipeg.

The President, Dr. C. E. Corrigan, called the meeting to order.

1. Roll Call

The following members were present: Doctors C. E. Corrigan, President; T. W. Shaw, Vice-President; T. H. Williams, Treasurer; M. T. Macfarland, Registrar, A. R. Birt, W. J. Boyd, B. Dyma, A. P. Guttman, G. H. Hamlin, Ed. Johnson, Percy Johnson, Wm. Malyska, A. L. Paine, F. H. Smith, C. B. Stewart, S. S. Toni, C. H. A. Walton and Wm. Watt.

The Registrar advised that Dr. F. K. Purdie was ill in hospital and unable to attend the meeting.

The President presented the following list of names of members of the College deceased during the year:

Doctors Edwin Ernest Bugg, Eden, Manitoba. Walter Gordon Campbell, Winnipeg, Manitoba. Rudolph Abramovitch Claassen, East St. Paul, Manitoba. Jacob Katz, Winnipeg, Manitoba. Charles Alexander Mackenzie, Winnipeg, Manitoba. Isabelle McTavish, Winnipeg, Manitoba. Charles James Meredith, Valley City, North Dakota. James Moore Morrow, Winnipeg, Manitoba. Arthur Robert Taylor, Vancouver, B.C. Charles Morley Vanstone, Winnipeg, Manitoba. Hugh Frederick Woodhouse Vernon, Winnipeg, Manitoba.

2. Reading of Minutes and Their Approval

The Registrar stated that the minutes of the May Council meeting had been mimeographed and circulated to the members of Council.

Motion: "THAT the minutes of the May Council meeting be taken as read." Carried.

3. Reports of Officers and Their Consideration

A. Registrar's Report

Mr. Chairman and Gentlemen:

You have been subject to numerous reports during the last few days, and I shall try to follow the excellent example which was afforded at some of the gatherings. The following are some of the highlights of the year's activities, and I would ask your indulgence to the reports of the various committees for consideration of other items.

Meetings

During the year there have been:

1 special meeting of Council on May 23rd, 1953.

2 meetings of the Executive Committee, 1 prior to and 1 subsequent to the May meeting of Council.

12 meetings of the Registration Committee, 7 prior to and 5 subsequent to the May meeting of Council.

2 meetings of the Specialist Committee, both subsequent to the May meeting of Council.

Certificates

Of 27 applications for student registration all were granted.

Of 102 applications for Enabling Certificates 92 were granted. 10 were deferred pending receipt of additional information.

Of 32 applications for Certificates of Licence (temporary), 32 were granted. 3 were issued without payment of a fee as they were registered in another Canadian Province, and members of Her Majesty's Permanent Forces. 26 of these remain in effect. 6 Temporary Licences were cancelled, and 4 were replaced by Permanent Registration Certificates. The schools from which the applicants graduated were as follows: Manitoba, 18; other Canadian, 2; United Kingdom, 8; Foreign, 4.

Of 89 applications for Certificates of Registration for which all supporting documents were presented, 86 were granted, and 3 were deferred pending receipt of additional information. 14 were replacing Temporary Licences. The schools from which the applicants graduated were as follows: Manitoba, 43; other Canadian, 5; U.S.A., 2; United Kingdom, 25; European, 5; Asian, 6.

Of 93 applications for Specialist Registration, 87 specialists were registered—63 with R.C.P. & S. (C) standing, 24 approved by Specialist Committee and 6 were deferred.

Registered doctors in Manitoba, September 30th, 1953:

	Perm.	Temp.	Total
Greater Winnipeg	585	19	604
Outside Winnipeg	248	12	260
	833	31	864

Number of Doctors Registered in Manitoba, 1943-52

Year	Winnipeg	Outside Winnipeg	Total
1943	317	178	495
1944	318	179	497
1945	349	177	526
1946	491	223	714
1947	503	226	729
1948	511	236	747
1949	528	233	761
1950	546	229	775
1951	564	235	799
1952	573	251	824

Changes in the Register

During the year October 1, 1952 to September 30, 1953, in addition to those who were fully or temporarily registered, 12 members were removed by death; Winnipeg 8, Rural Manitoba 1, outside Manitoba 3. 69 members left the Province, while 23 previously registered returned to the Province. There were 133 changes of address within the Province, and 22 changes of address outside the Province.

Members Granted Life Memberships

October 1, 1952—September 30, 1953:

Beaton, Wesley Grant ..... Winnipeg
Clark, Frank Herbert ..... Reston
Jamieson, Fred Lawrence ..... Winnipeg
MacNeil, Frank Alex ..... Winnipeg
Menzies, Adam Fisher ..... Morden
Novak, Gregory ..... Winnipeg
Picard, Joseph ..... Winnipeg
Purdie, Frank Kidd ..... Griswold
Shaw, Thorne William ..... Russell
Tisdale, Walter Felix ..... Winnipeg
Trudel, Jean Joseph ..... Winnipeg
Willson, William Harper ..... Winnipeg

8 reside in Winnipeg and 4 reside in Rural Manitoba.

Cash Receipts

Annual Fees				$3,960.00
Registration	68 x	$100.00	$6,800.00	
	1 x	95.00	95.00	
	9 x	90.00	810.00	
	6 x	80.00	480.00	
	2 x	70.00	140.00	
				$8,325.00
Temporary Licences	25 x	10.00	250.00	
	4 x	5.00	20.00	
				270.00
M.C.C. Certificates	35 x	25.00	875.00	
	60 x	5.00	300.00	
				1,175.00
G.M.C. Certificates	7 x	5.00		35.00
Student Registration	27 x	1.00		27.00
Spec. Registration	34 x	5.00		170.00
Documentation Fees	86 x	25.00		2,150.00
Sale of Lists of Physicians Addresses				322.00
Sale of Lists of Address Changes				98.00
Miscellaneous:				
Wires and Postage			$ 25.00	
Overpayments			15.00	
Refund from C.M.A. Local Finance Subcommittee re annual meeting donation			507.10	
				547.10
Suspense Account				240.00
Refunded from Suspense Account				190.00
				$17,509.10

Arrears of Annual Fees—1951, 1; 1952, 4; 1953, 24. (As at September 30, 1953).

Other problems have been many, and will be discussed at the appropriate place on the agenda. It would be most ungrateful and ungracious of me to resume my seat without a word of appreciation to those who have assisted me during the past year, the President, Chairmen and members of the various committees, and Miss Allison and Miss Zawadzki.

Respectfully submitted,
M. T. Macfarland, M.D., C.M.,
Registrar.

Motion: "THAT the Registrar's Report be adopted." Carried.

B. Treasurer's and Auditors' Reports

Your Treasurer begs to submit the following report for the year 1952-53. Herewith also submitted the Auditors' report.

Gordon Bell Memorial Trust Fund

There have been no bond sales or purchases and there are $25,500 in Dominion of Canada 3% fully registered bonds to the credit of this account in our safety deposit box at the bank.

Interest earnings in this account during the year total $774.92.

As authorized by Council and at the request of the Gordon Bell Memorial Committee a Scholarship of $150.00 per month was paid to Dr. Colin Ferguson for the nine months October, 1952, through June, 1953.

Credit balance on hand in this account at Sept. 30 was $592.47. Earnings of the account are approximately $775.00 per year. Any scholarship award during the coming half year will necessitate sale of bonds but by July 1, 1954, cash on hand and interest receivable would carry another grant.

Investment Trust Account

There have been no bonds purchased or sold in this account during the past year. There are $60,000 in Dominion of Canada fully registered 3% bonds in the safety deposit box at the bank.

Cash on hand in this account at Oct. 1, 1952, was $1,954.97. Cash on hand at Sept. 30, 1953, was $3,026.74. During the year there was paid from this account Medical College Library $750.00, Extra Mural Expense $231.28 (not yet cashed).

This account earns approximately $1,821.77 per year and it is the intention of the Finance Committee to ask for authority to invest the cash on hand in excess of expected needs in additional bonds.

Current Account

Total revenue in this account for the year amounted to $17,509.10 and total disbursements for current expenses to $15,254.31 showing an excess of revenue over disbursements of $2,254.79. Cash on hand in this account at Sept. 30, 1953, amounted to $7,606.63.

A considerable part of our income continues to come from fees for registration to practice in Manitoba and the extra registration taken out in order to obtain reciprocal registration to practice elsewhere. Another added source of income is the Documentation Fee of $25.00 which is now helping to offset the additional cost of office help required for processing the documents of foreign applicants for registration.

Investments

The question of investment of funds in some form that would produce more than 3% has been in abeyance awaiting legislation allowing wider scope of investment. Since such legislation was passed allowing the College to invest in any securities legal for Insurance Companies investment your treasurer and members of the Finance Committee have been exploring the possibilities. The Finance Committee will bring you a recommendation on this later today. The present bond holdings were submitted to the firm of Osler, Hammond and Nanton for advice and after studying the list their representative said that much as they would like to do some business they could not suggest any improvement on the issues now held and their time spacing and congratulated the College on our holdings. For any further investment they suggest B.A. Oil stock or Manitoba Government 1968 bonds at 4¼% interest.

The office work and the cost of it continue to rise as is true of business generally. We must expect to pay more for our help but so long as the volume keeps up the income also keeps up and we have had a successful year.

Respectfully submitted,

T. H. Williams, M.D.

Treasurer.

Auditors' Report

Motion: "THAT the Treasurer's and Auditors' reports be adopted." Carried.

The Auditors' statement was accompanied by a letter suggesting possible improvements in records and bookkeeping. This letter was read to the Council and turned over to the Treasurer and Registrar for consideration and such action as deemed advisable.

Dr. Walton pointed out that the excess of receipts over disbursements in the Current Account was roughly the same amount as the total of the documentation fees collected.

Dr. Ed. Johnson stated that the uninvested funds total $10,402.00 and inquired whether the Finance Committee had any suggestions concerning the amount which should be left in uninvested funds. The treasurer advised that the Finance Committee had met earlier that morning, a report of which would be submitted later in the meeting, and had considered $3,000.00 should be left on hand in uninvested funds.

Dr. Walton suggested that the Auditors' Report be mimeographed in future years and circulated to members before the meeting of Council, so that they would have an opportunity to study it before the meeting. The Registrar explained that with the year ending at Sept. 30th, and the Annual Meeting held about the middle of October, the Auditors' Report is not received in sufficient time to have it mimeographed and circulated to Council members. This year's report was received on Oct. 16th at 4.30 p.m. He stated that from year to year there have been junior men coming in to make the audit, and much time is spent by the Treasurer, Registrar and office staff, procuring the required information. He also said that receipts had been touched on by the auditor. He explained that it had been the practice in the office to hold in the cash box monies paid for certificates on which no action had been taken on the documentation. As these amounts increased, it was decided to set up a Suspense Account. Receipts were not mailed in these instances until the certificates were approved by the Registration Committee, then the money was transferred from the Suspense Account to the proper category, and the receipt mailed, together with the certificate. It was in the apportioning of money received in the Suspense Account that a lot of time was spent.

Dr. Williams advised that the Library Committee was considering the purchase of a photostat machine for making photostat copies of requested articles, and it might be possible for the College to make use of this machine from time to time.

4. Reports of Standing Committees and Their Consideration

A. Executive Committee

The Chairman, Dr. C. B. Stewart, advised that since the May meeting of Council there had been one meeting of the Executive Committee held on September 10th, 1953. The minutes had not been circulated, but there was considerable business to be discussed arising from the meeting.

PRICE, WATERHOUSE & CO.
202 The Bank of Toronto Building

Winnipeg, October 16, 1953.

The College of Physicians and Surgeons of Manitoba,
Winnipeg, Manitoba.

Dear Sirs:

We have made an examination of the accounting records of The College of Physicians and Surgeons of Manitoba for the year ended September 30, 1953, including the Gordon Bell Memorial Fund. This examination embraced (a) verification of cash and bank balances and of investment securities as at the year end, (b) examination of signed vouchers and paid disbursement cheques for the year and comparison of them with the relevant entries in the books, (c) tracing to the cash book of duplicates of receipt forms issued, (d) verification of general ledger postings and arithmetical accuracy of the accounting records for the year and (e) inspection of the official minutes and preparation of the annual financial statements which are attached to this report.

Our comments on the financial statements and on our examination in general are as follows:

Government of Canada Bonds:

We attended at the safety deposit vaults of The Bank of Toronto on October 1, 1953, and, in conjunction with your treasurer and registrar, examined Government of Canada bonds of a par value of $25,500 as shown under the heading of Gordon Bell Memorial Fund and of a par value of $60,000 as shown under the heading of Investment Account. These bonds were fully registered in the name of the College of Physicians and Surgeons of Manitoba.

Funds on Deposit:

The balances on deposit with The Bank of Toronto at September 30, 1953, were confirmed by certificate received by us direct from the bank.

Receipts and Disbursements:

Interest was accounted for from all investments and interest bearing deposits and all cash received, as evidenced by duplicate receipts issued appears to have been promptly deposited in the bank.

Disbursement cheques were found to have been signed by two authorized signatories, viz, Dr. M. T. Macfarland and Dr. T. H. Williams. Vouchers examined for expenditures bore the approvals of either both of these persons or Dr. Macfarland and Dr. C. E. Corrigan. Grants, donations, changes in salaries, and certain other expenses were found to be in accordance with authorizations in the minutes of meetings of the Council and Executive Committee.

Accounting Methods and Records:

In making our examination we gave consideration to such matters as the system of internal control and possible improvements in the system of record keeping. Because the executive and accounting organization is comprised of so few persons it should be understood that it is not possible to establish a system of internal control whereby the work of one person is checked by another and consequently the work which we do is probably more extensive than might be necessary in a larger organization. We observed a few areas in the accounting system where improvements could be introduced to advantage and we have outlined them in a letter addressed to Dr. Macfarland.

* * *

We shall be pleased to furnish you with any additional information you may desire in regard to the attached accounts.

Yours very truly,
Price, Waterhouse & Co.

Exhibit I

The College of Physicians and Surgeons of Manitoba
Statement of Funds, September 30, 1953

	Investment Account	Current Account	Total	Gordon Bell Memorial Fund
Investments:				
Government of Canada bonds, fully registered in the name of The College of Physicians and Surgeons of Manitoba, carried at par				
3% Victory loan due 1957	$ 500.00	$	$ 500.00	$ 1,000.00
3% Victory loan due 1959	45,000.00	.....	45,000.00	.....
3% Victory loan due 1966	14,500.00	.....	14,500.00	24,500.00
	$60,000.00	$	$60,000.00	$25,500.00
Uninvested Funds:				
On deposit with The Bank of Toronto	2,795.46	7,606.63	10,402.09	592.47
Petty cash fund	.....	10.00	10.00	.....
Total	$62,795.46	$ 7,616.63	$70,412.09	$26,092.47

Exhibit II

The College of Physicians and Surgeons of Manitoba
Statement of Receipts and Disbursements
For the Year Ended September 30, 1953

	Investment Account	Current Account	Total	Gordon Bell Memorial Fund
Cash Receipts:				
Interest on bonds	$ 1,800.00	$	$ 1,800.00	$ 765.00
Interest on bank deposits	21.77	.....	21.77	9.92
Fees and other receipts, per Exhibit III	.....	17,509.10	17,509.10	.....
	$ 1,821.77	$17,509.10	$19,330.87	$ 774.92
Cash Disbursements				
Scholarship award to Dr. Colin Ferguson	$	$	$	$ 1,350.00
Grant to Medical Library Committee	750.00	.....	750.00	.....
Grant to Manitoba Medical Association for extra-mural postgraduate work	231.28	.....	231.28	.....
General disbursements, per Exhibit III	.....	15,254.31	15,254.31	.....
	$ 981.28	$15,254.31	$16,235.59	$ 1,350.00
Receipts in excess of disbursements for the year	$ 840.49	$ 2,254.79	$ 3,095.28	$ (575.08)
Add—Cash in bank and on hand at commencement of year	1,954.97	5,361.84	7,316.81	1,167.55
Cash in bank and on hand as at Sept. 30, 1953, per Exhibit I	$ 2,795.46	$ 7,616.63	$10.412.09	$ 592.47

Exhibit III

The College of Physicians and Surgeons of Manitoba
Particulars of Receipts and Disbursements, Current Account
For the Year Ended September 30, 1953
(with comparative figures for 1952)

	1953	1952
Fees and Other Receipts:		
Registration fees	$ 8,325.00	$ 7,975.00
Annual fees	3,960.00	3,879.00
Certificates—		
M.C.C.	1,175.00	1,035.00
G.M.C.	35.00	50.00
Temporary licenses	270.00	220.00
Specialist registration fees	170.00	215.00
Documentation fees	2,150.00	500.00
Medical student registration fees	27.00	73.00
Sales of mailing lists	420.00	431.00
Miscellaneous income	40.00	7.38
Refund on donation to Canadian Medical Association	507.10	
Deposits on applications pending	430.00	
Total receipts—Carried to Exhibit II	$17,509.10	$14,385.38
General Disbursements:		
Salaries—		
Registrar	$ 3,600.00	$ 3,499.96
Treasurer	500.00	500.00
Assistant to registrar	2,395.00	2,215.00
Office	1,660.00	
Meetings—		
Annual, October 11, 1952	768.60	580.20
Special, May 23, 1953	638.30	712.00
Executive committee	92.80	247.20
Special committees	270.00	341.80
Luncheons, annual and special meetings	9.00	37.00
Janitor service, annual and special meetings	10.00	10.00
Documentation fee paid to University of Manitoba	95.00	
Manitoba Medical Association for office rental and secretarial services, etc.	960.00	2,350.52
Stationery and office supplies	281.71)	
Printing	419.92)	1,770.36
Postage	220.00	258.47
Insurance premiums	20.00	17.60
Audit fees	175.00	175.00
Legal fees	1,515.00	25.00
General expenses	13.25	35.25
Miscellaneous office expense	146.50	92.37
Bank exchange	12.29	15.90
Expenses of Registrar—meeting in Banff		190.00
Deposits refunded on unaccepted applications	190.00	
Registration fees refunded	131.94	90.00
Manitoba Medical Association—expense of Workmen's Compensation Board fee taxing committee	90.00	145.00
Donation to Canadian Medical Association (see refund above)	1,000.00	
Total disbursements—carried to Exhibit II	$15,254.31	$13,308.65

Clinical Luncheon Program

The Winnipeg General Hospital

Feb. 4—Department of Dermatology.

Feb. 18—Department of Neurology and Neuro-psychiatry.

March 4—Department of Neuro-surgery.

March 18—Department of Pathology.

April 1—Department of Physiology and Medical Research.

April 15—Department of Radiology.

May 6—Department of Medicine.

May 20—Department of Surgery.

Book Reviews

Medical Jurisprudence

This 944-page volume is a product of South Africa. Much of it applies directly to South African conditions—the laws affecting legal and medical practice; registration and professional discipline; unprofessional conduct, etc. This section is more than ordinarily large because this book is a standard text for both the legal and medical professions. So far as we are aware no comparable book exists in Canada. Every aspect of the doctor's relation to the law is covered, so that questions that in this Realm may be left in doubt can, in South Africa, be speedily resolved.

The matters that are particularly within the scope of forensic medicine are fully covered. The determination of identity from remains and from the blood; the diagnosis and early signs of death; necropsy technique are all gone into very fully. There are illuminating chapters on the ways that death can be brought about—rapid anoxia, anoxic anoxia, anemic and histotoxic anoxia, anaesthetics, burns, exposure, cardio-vascular failure, etc., etc.

There are chapters on wounds, regional injuries of medico-legal importance, poisons, sexual offences, abortion, infanticide and so on. The medico-legal aspects of alcoholism, of habit forming drugs, of mental defect are included.

Not only are there many pictorial illustrations but verbal ones as well and there is a special index of the 250 cases cited. These include British and American as well as African trials.

The book would prove a useful addition to the libraries of those who serve as coroners. In many ways the approach is different but the material is applicable to any country where murders are done. Much of the information concerning practice is also of universal application.

Medical Jurisprudence, by I. Gordon, R. Turner and T. W. Price; Third Edition, 944 pages. The Macmillan Company of Canada Ltd. Price $12.75.

* * *

Physiological Chemistry

The Lange Medical Publications are characterised by their clarity and conciseness. Those who possess "Medical Management" and "The Physician's Handbook" are aware that completeness of information has not been sacrificed to the brevity which makes these books such useful companions.

"Review of Physiological Chemistry" is along the same lines. The author's purpose has been to make a difficult subject as easy of comprehension as is possible. Established facts of daily application are stressed: the theoretical and controversial are omitted.

The author's lectures form the basis of this Review which is "intended as a supplement to the standard texts in biochemistry." It is therefore of special value to students, whether these be undergraduates studying the subject for the first time, or post-graduates who are working for a higher qualification.

But inasmuch as the chemical aspects of health and disease are a necessary consideration in all manner of ailments, the practitioner can scarcely get along without a fair knowledge of biochemistry.

There are 328 pages of text illustrated by diagrams and other aids. The type is small but readable. The index is quite comprehensive. No book on this subject makes easy reading but Harper's "Review" is as readable as the subject can be made. Those who wish to refresh their memories or to learn what they may not know well could go further and fare worse than by using this Review.

Review of Physiological Chemistry, by Harold A. Harper, Ph.D., Professor of Biochemistry, University of San Francisco. Lange Medical Publishers, P.O. Box 1215, Los Altos, California. Price $4.00.

* * *

The Nature of Virus Multiplication

This volume consists of sixteen contributions by twenty-four scientists. These were given at Oxford University, April, 1952. Because of the controversial nature of the symposium the Society for General Microbiology invited a representative group of virus experts to write a full account of their views. These were set in type and about a thousand sets of galley proofs were distributed to all members of the Society three weeks before the meeting.

The discussion on each paper follows it and sometimes there was opportunity for investigators to clarify points brought up in these discussions before this volume was published. "The movement of discovery is so rapid" that the Symposium is not now the last word in all things concerning viruses but it is the most up-to-date publication to be had.

It is essentially for the researcher but the importance of virus infections has become so great that all who have to do with them will find enlightenment on many points. Unfortunately there is no index. (Every book should have an index). The titles of the sixteen papers, however, serve as a guide to the information sought. There are many microphotographs and diagrams. 320 pages.

The Nature of Virus Multiplication: Second Symposium of the Society for General Microbiology held at Oxford University, April, 1952. Macmillan Company of Canada Ltd., Toronto. Price $6.00.

Department of Health and Public Welfare

Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1953 Nov. 29 to Dec. 26,'53	1953 Nov. 1 to Nov. 28,'53	1952 Nov. 30 to Dec. 27,'52	1952 Nov. 2 to Nov. 29,'52	Total Jan. 1 to Dec. 26,'53	Total Jan. 1 to Dec. 27,'52
Anterior Poliomyelitis	63	116	29	42	2338	841
Chickenpox	189	159	272	222	1387	1681
Diphtheria	0	0	0	0	4	2
Diarrhoea and Enteritis, under 1 yr.	19	13	21	11	188	178
Diphtheria Carriers	0	0	0	0	0	0
Dysentery—Amoebic	0	0	0	0	0	0
Dysentery—Bacillary	5	5	4	2	27	30
Erysipelas	3	0	2	5	29	20
Encephalitis	2	0	1	0	11	6
Influenza	12	11	15	6	241	173
Measles	63	148	615	468	2534	2473
Measles—German	0	4	2	1	44	16
Meningococcal Meningitis	3	3	3	0	33	19
Mumps	58	38	134	123	983	1450
Ophthalmia Neonatorum	0	0	0	0	0	1
Puerperal Fever	0	0	0	0	0	2
Scarlet Fever	65	69	61	53	461	683
Septic Sore Throat	6	5	2	3	98	78
Smallpox	0	0	0	0	0	0
Tetanus	0	0	0	0	2	4
Trachoma	0	0	9	0	0	9
Tuberculosis	63	78	63	1	833	912
Typhoid Fever	0	0	0	0	0	5
Typhoid Paratyphoid	0	0	0	0	0	2
Typhoid Carriers	0	0	0	0	0	0
Undulant Fever	1	1	1	0	11	6
Whooping Cough	18	18	29	14	183	445
Gonorrhoea	110	89	93	82	1262	1291
Syphilis	9	12	9	9	90	116
Infectious Jaundice	18	40	15	17	317	81
Tularemia	0	0	0	0	2	4

Four-Week Period November 29th to December 26th, 1953

DISEASES (White Cases Only) *Approximate population.	*909,000 Manitoba	*961,000 Saskatchewan	*3,825,000 Ontario	2,952,000 Minnesota
Anterior Poliomyelitis	63	15	36	39
Chickenpox	189	502	1945	—
Diarrhoea and Enteritis, under 1 yr.	19	16	—	—
Diphtheria	—	—	1	1
Diphtheria Carriers	—	—	—	—
Dysentery—Amoebic	—	—	1	4
Dysentery—Bacillary	5	9	19	25
Encepahalitis Epidemica	2	—	—	5
Erysipelas	3	1	1	—
Influenza	12	—	7	4
Infectious Jaundice	18	34	109	363
Measles	63	76	476	13
Gearman Measles	—	18	54	—
Meningitis Meningococcus	3	2	11	4
Mumps	58	311	827	—
Ophthal. Neonat.	—	—	—	—
Puerperal Fever	—	—	1	—
Scarlet Fever	65	95	410	131
Septic Sore Throat	6	24	4	40
Smallpox	—	—	—	—
Tetanus	—	—	—	—
Trachoma	—	—	—	—
Tuberculosis	63	51	143	203
Tularemia	—	—	—	1
Typhoid Fever	—	—	1	—
Typh. Para-Typhoid	—	2	1	—
Typhoid Carriers	—	—	—	—
Undulant Fever	1	1	1	8
Whooping Cough	18	41	185	35
Gonorrhoea	110	—	224	—
Syphilis	9	—	68	—

***DEATHS FROM REPORTABLE DISEASES**
For the Month of December, 1953

Urban — Cancer, 50; Pneumonia, Labor, 1; Pneumonia (other forms), 9; Poliomyelitis, 1; Syphilis, 2; Tuberculosis, 1; Diarrhoea and Enteritis, 1; Streptococcal Sore Throat, 1; Septicaemia and Pyemia, 1; late effects of Acute Polio, 1. Other deaths under 1 year, 24. Other deaths over 1 year, 197. Stillbirths, 5. Total, 226.

Rural—Cancer, 39; Influenza, 3; Pneumonia, Lobar, 4; Pneumonia (other forms), 10; Pneumonia of newborn, 1; Syphilis, 2; Tuberculosis, 2. Other deaths under 1 year, 18. Other deaths over 1 year, 171. Stillbirths, 7. Total, 196.

Indians—Cancer, 1; Measles, 1; Pneumonia, Lobar, 1; Pneumonia (other forms), 5; Tuberculosis, 2; Diarrhoea and Enteritis, 3. Other deaths under 1 year, 1. Other deaths over 1 year, 6. Stillbirths, 1. Total, 8.

♦

Poliomyelitis seems to have disappeared almost completely though one or two new cases developed around the New Year. The chief consideration now is to make sure that all persons who still have residual paralysis receive the maximum benefit of physio-therapy and any other good treatment which is indicated. Education and rehabilitation are most necessary. Inquiry regarding these matters should be channelled through the Crippled Children's Society, 442 William Avenue.

Diphtheria—Only four cases in the year—it can be wiped out. Manitoba has placed several X's on the records in 1953. No cases of Puerperal Fever, Smallpox, Trachoma, Typhoid and Paratyphoid reported. We have been free of Smallpox since 1939 but the others (especially Typhoid Fever) mark a very definite milestone in the path of provincial health history.